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AN INTERPRETATION OF THE DISTRIBUTION OF
FINANCIAL DECISION-MAKING IN CANADA.

University of California, Berkeley, Ph.D.,
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The Spatial Dynamics of Financial Intermediaries:
An Interpretation of the Distribution of Financial Decision-Making in Canada

By

William Robert Code

A.B. (Queen's University, Kingston, Ontario, Canada) 1965

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CHAPTER I

INTRODUCTION: THE PAPER ECONOMY

We have increasingly become a paper economy in a transactional society. Progressively we abandoned dealing with things and have abstracted the transactional process by substituting complex forms of paper substitutes. Both literally and figuratively, we no longer deal with gold, but with gold-tomorrow, and even with totally imaginary gold, both of which take the form of paper. This paper fluctuates in value day-by-day and even hour-by-hour, varying not so much with the material magnitude of the things the paper may ultimately represent but with the impressions of constantly changing groups of people. For example, as Veblen pointed out, the capital and real worth of most businesses stand in no hard and fast relation to the material size of a business, for the ability to borrow is among a business' main assets.¹ At the core of this paper economy are the financial intermediaries. Through them, this paper is created, moved, transformed and destroyed. Finance constitutes an elaborate mechanism which primarily functions as a conduit serving as an intermediary among those elements of society having different needs for paper and whatever it may represent. In the process of

¹Thorstein Veblen, The Theory of Business Enterprise (New York: Scribner's, 1904), p. 67.

facilitating the movement of funds, it is also able to create and destroy them.

Finance is an elite, umbrella function, a nerve center of the entire economy and as such has been intricately dissected by the economic profession, but there is one aspect of the field which has been largely ignored and that is the causality of the spatial morphology of the most important part of the financial system. The distribution of the lower level "street office" segment of the financial system has been considered by geographers in a myriad of "central-place" studies but the vital higher level functions² have been largely ignored, or have erroneously been assumed to fall under the central-place schema. These higher level financial functions and the financial communities in which they cluster are the major control nodes (outside government centers) for the financial system and much of the economy beyond. This fact has been appreciated by capitalists and populists alike and yet the process which has resulted in the distribution of the control has been relatively unstudied.

Employment in finance, and particularly in the higher levels of this field, has been small relative to the overall work-force, but the impact of its distribution undoubtedly has had considerable impact on other sectors of the economy through the distribution of the capital for development and through the mutual interdependence

²The higher level functions are typically involved in less standardized activities, generally have a greater demand for intelligence, have greater powers of controlling the economy, and have a more extensive ability to make independent decisions than the lower level street office functions. Basically, they are the functions portrayed in the "money market core" and "inner ring" of Figure 2-1.

of finance and other functions for information. A characteristic of the present-day urban pattern is the frequency with which even industrial cities are centered around a mercantalist core. The present urban pattern in North America, in many respects, displays characteristics which can best be explained by the nature of the commercial expansion over the continent, and only to a lesser extent by requirements of industrialization which led to relatively virgin locations. In many cases, the relative immobility of large financial communities has acted as a cement in maintaining early mercantalist cities. As well, the financial community is increasingly becoming the prime source of support for the cores of many metropolitan areas, displacing retailing in this role. This support is not the same for all cities, varying considerably even between centers of the same size. This obviously has important morphological implications for particular cities and, for that reason alone, study of the distribution of financial intermediaries is of value.

It is becoming increasingly obvious that one of the main causal factors in the growth of a city is its function as a communications mechanism and that the differential growth of cities may in many cases be explained by the spatial pattern of information flow at crucial periods in the city's history. Finance, as the most communications-oriented urban function, is obviously a worthy subject of inquiry in attempting to understand the role that intelligence might play in the overall process of urban growth.

The present thesis seeks to explain the geography of higher level financial decision-making, largely in terms of the need for and availability of financial intelligence. But, besides allocating a

central position to the role of information, explanation of the present-day distribution of finance demands that an unusually long span of time be considered, for financial communities more than most functions are characterized by a recursive growth process. The distribution may frequently be a reflection of particular characteristics of the need and supply of information decades before, which created a situation which has been maintained in equilibrium by parallel circular and cumulative growth processes in a system of financial communities.

The hypothesis advanced in the succeeding pages differs considerably in its premises from that of central-place theory and the work on metropolitan evolution popularized by Gras.³ In the first place, with higher level financial activity, the demand by the consumer for a minimization of the distance to purveyors of a service has never been strong and has become weaker through the period with which we are concerned. Such demand on the part of consumers of higher level financial services has been greatly over-shadowed by the need for access to information on the part of the financial intermediaries, a need which they found best satisfied in compact financial communities. In any given area, the forces influencing the extent of higher level financial decision-making have been more exogenous than endogenous. The requirements of pre-existing financial communities have influenced the distribution of financial decision-making in a developing area more than the demands of that

³Which in its emphasis on endogenic change, and on the idea of threshold (although not expressed as such) is not substantially different from that espoused by central-place theory.

area itself. As will be shown in the case of Canada, organizational adaptations resulting from the need to acquire financial intelligence may result in the creation of financial communities with various levels of availability of information within them. But, with the rather early lessening of the importance of distance, hinterlands did not become mutually distinct and exclusive for similar types of financial functions but instead increasingly became superimposed. For example, for many types of financial functions, the hinterland of Montreal was not different from that of Toronto. What became important in respect to the level of service offered was the information environment of a financial community and not the proximity of the service to the consumer. With respect to the provisioning of service in this increasingly frictionless space (as far as the consumer for higher level financial services was concerned), the particular advantages of the financial community became the overriding issue--not proximity.⁴ In such a situation, central-place theory loses much of its significance.

The hypothesis which is put forth in the succeeding pages is largely based on empirical evidence drawn from Canada in the period between 1821 and the present. Although other areas such as the United States, Australia, and Great Britain could be an equally fruitful locale for the empirical study, Canada has many advantages. Among these is the fact that it possesses a relatively small economy

⁴For example, it became largely irrelevant to a borrower of \$1,000,000 in Regina, whether the money emanated from an intermediary in Calgary or one in Toronto. Distance is not important when obtaining financial advice. What is important to an investor in Regina is the extent of financial intelligence available to his advisor in either Calgary or Toronto.

with a fairly simple financial history and yet still covers an immense physical extent and thereby emphasizes what distance determinants there are in the location of financial intermediaries. Even more important, the spatial arrangement of its finance, and particularly banking, has not been greatly interfered with by the governments as it has in the United States. These markedly differing banking laws have significantly affected the spatial organization of these institutions, in some cases the law requiring strictly unit banking and in others allowing full branch operation. The lingering Jacksonian ethic of decentralized finance, which has not only resulted in unit banking but also in that unusual form of central banking, the Federal Reserve System, has affected to some extent the normal spatial growth processes of finance (although certainly not to the extent anticipated by the proponents of decentralization). A further important factor is that Canada's major spatial and economic expansion occurred relatively late, during a period when important communications innovations transformed the time and costs of transmitting financial intelligence and in part resulted in contrasting locational influences on finance.

The approach adopted for this research does not follow the complete sequence of the hypothetico-deductive method,⁵ but instead puts forth a model of a process mechanism, which hopefully may undergo verification procedures if the data may someday be found to enable their application. However, partly because of the temporal

⁵See Abraham Kaplan, The Conduct of Inquiry (San Francisco: Chandler, 1964), pp. 9-10.

mode which any explanation of the location of financial intermediaries must be considered and partly because of the secrecy surrounding some financial intelligence, there are immense problems in acquiring the vital data about the quality and quantity of information entering, circulating, and leaving the financial community (although a simulation approach, using surrogate measures, could partially circumvent this problem).

The model which is put forth is concatenated, possesses certain recursive elements and is couched in cause-and-effect terms, which despite the fact that it imposes something on empirical reality, is of particular value in examining the evolution of spatial systems over time.⁶

The dissertation can be roughly divided into three parts. The first, including Chapters II and III, portrays in turn the nature of financial intermediaries and financial communities, and in particular the role that information plays in their operation, and also the broader theoretical context of the study. The second, and by far the largest part (Chapters IV and V), empirically examines the spatial dynamics of financial functions in Canada. Based largely on this evidence and material from part one, the process model is presented in part three (Chapter VI).

⁶See David Harvey, Explanation in Geography (London: Arnold, 1969), p. 406.

CHAPTER II

THE NATURE OF FINANCIAL INTERMEDIARIES AND FINANCIAL COMMUNITIES

The difficult businesses of transferring funds from those with a surplus or a debt to those who are more able to use them, or a creditor, is the primary function of financial intermediaries.¹ To quote Kuznets, "financial intermediaries obviate the need for each group of savers to seek out and choose among the wide variety of capital users, and conversely, for each group of capital users to seek out and choose among the wide variety of savers."² While the exact nature of the service may vary among different types of financial intermediaries, the fundamental role is the facilitating of this transfer. Inherent in this role is a geographical element, as Walter Bagehot pointed out with respect to industrializing England.

The savings of a country with good land but no manufactures and no trade much exceed what can be safely lent in the country. These savings are first lodged in the local banks, are by them sent to London, and are deposited with London

¹But this was not the only role originally played by financial institutions. One of the earliest financial functions of the London goldsmiths was the safekeeping of money deposits in trust returnable on demand, after Charles I seizure of funds in the previous storehouse--the Tower (anonymous, "The Goldsmith Banker," The Three Banks Review, No. 27 (Sept. 1955), p. 42.

²Simon Kuznets, Capital in the American Economy: Its Formation and Financing (Princeton: Princeton University Press, 1961), p. 31.

bankers, or with the bill brokers. In either case the result is the same. The money thus sent up from the accumulating districts is employed in discounting the bills of the industrial districts. Deposits are made with the bankers of such counties as Somersetshire and Hampshire, and those bill brokers and bankers employ them in the discount of bills from Yorkshire and Lancashire. Lombard Street is thus a perpetual agent between the two great divisions of England, - between the rapidly-growing districts, where almost any amount of money can be well and easily employed, and the stationary and the declining districts, where there is more money than can be used.³

A wide variety of institutions make up or serve the various capital markets. There are organizations which are primarily deposit institutions, such as the Bank of Canada, the chartered banks, savings banks, trust and loan companies, and credit unions. Others are insurance and pension institutions such as life insurance companies, fire, marine, and casualty companies and the various forms of pension funds. Still others are investment companies, which issue stocks or bonds against their portfolios. A final group of institutions, such as investment dealers, securities brokers (frequently affiliated in Canada), and securities exchanges also play an important middleman role.⁴ But these organizations, especially in Canada, are very broadly based and encompass many functions which

³Walter Bagehot, Lombard Street (London: Elder and Co., 1910). For a similar assessment of the role of Canadian banks, see E. L. Stewart Patterson, Canadian Banking (Toronto: Ryerson Press, 1941).

⁴Investment dealers usually take temporary ownership of the securities and deal in new issues, while the brokers usually deal with previously issued securities, and do not take title to the securities (unless they are trading on their own account). See, The Investment Dealers Association of Canada, Brief to the Royal Commission on Banking and Finance, Vol. 1 (Ottawa, 1962) for a description of the activities of investment dealers in Canada.

frequently overlap with those of other institutions. In order to understand a financial community and the locational forces operating on it, it is necessary to depict it on a functional basis.

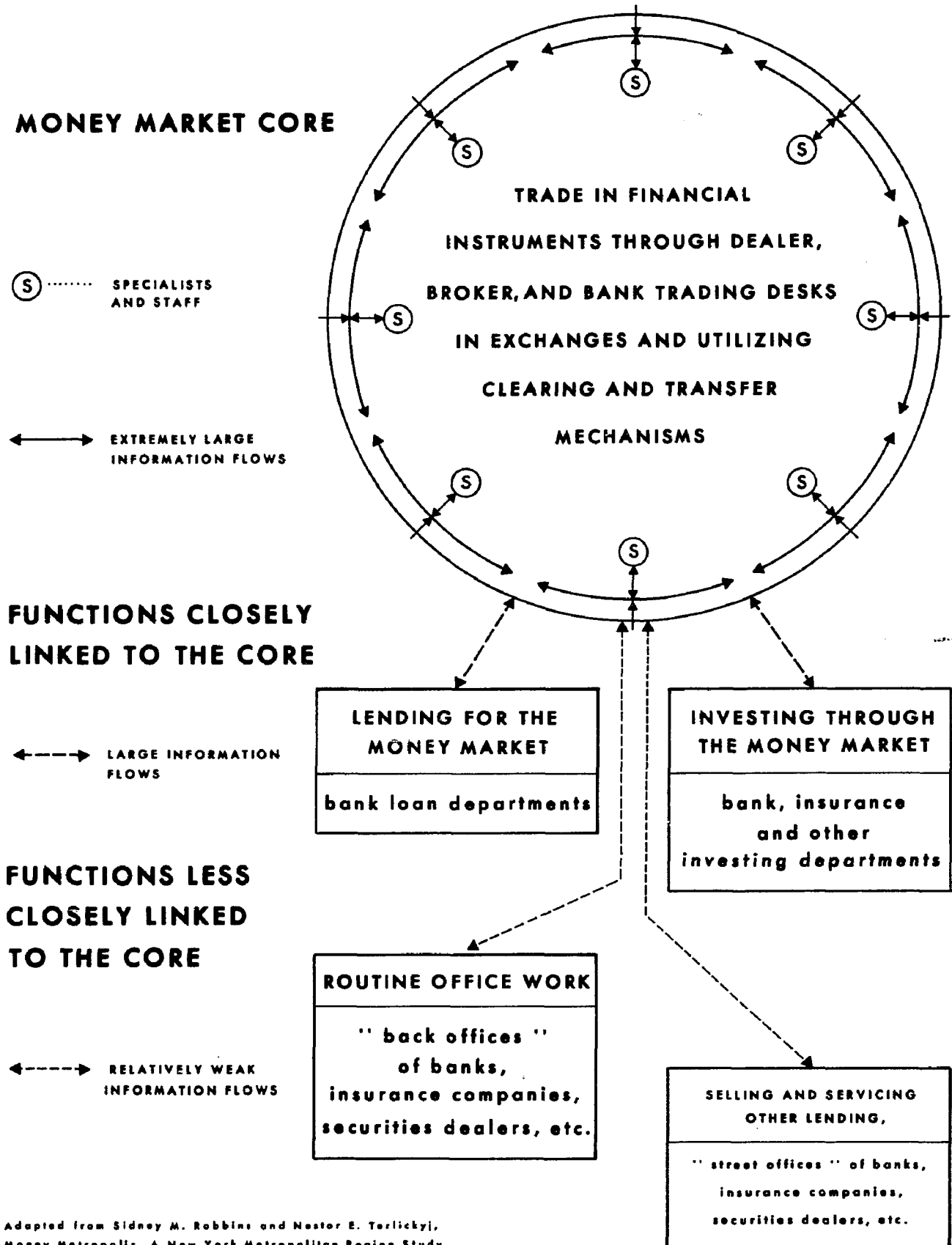
1. Financial Functions and the Market for Valuable Information

The nuclear functions of a financial community are performed by a relatively small number of people, but a number which is so vital that their performance determines the size and health of the entire community (see Figure 2-1). This group, comprising what Robbins and Terleckyj call the "money market core",⁵ is made up of the specialists and their immediate staff who largely manage the market for financial instruments and thereby adjust supply and demand.⁶ They mainly operate from the trading desks of dealers, banks, and the Bank of Canada. The specialists, researchers and securities analysts, which make up this core, may be part of a firm which operates exclusively in a single type of security, but more frequently these firms deal in several different types. Especially in Canada these people may be part of a large organization, such as the large investment houses and the chartered banks, which covers a fairly wide spectrum of financial activity. Also forming part of this core are the exchanges and the clearing and transfer mechanisms.

⁵The "money market" is here interpreted as involving the trading in all financial instruments used for the transfer of funds, and not in the more narrow way as the market for highly liquid securities.

⁶Sidney M. Robbins and Nestor E. Terleckyj, Money Metropolis, A New York Metropolitan Region Study (Cambridge: Harvard University Press, 1960), pp. 25-46.

FUNCTIONS AND INFORMATIONAL LINKAGES WITHIN THE FINANCIAL COMMUNITY



Adapted from Sidney M. Robbins and Nestor E. Terlicky, Money Metropolis, A New York Metropolitan Region Study, (Cambridge, Harvard University Press, 1960) p. 30.

A second group of financial functions, while not as totally involved in the fast moving and intensive world of the participants in the money market core, is very closely tied to this nucleus. Bank and insurance company investment departments, even though they may be secondary participants, are highly dependent upon the information environment of the money market core.⁷ Also in this group are bank loan departments which tend the vast sums of money for the money market operations.⁸

Finally, there are the financial activities which are functionally less related to the money market core. The "street offices" of the banks, insurance companies, brokers and dealers and other financial organizations contain most of the financial manpower of the financial system and they are found "wherever a teller stands at his window or an insurance salesman keeps his desk."⁹ Most of this employment, in a locational sense, cannot be considered part of the financial community. Besides the "street offices", there are the

⁷Ibid., p. 31.

Most of the chartered banks in Canada, through their nominee companies, such as Gee and Co. of the Canadian Imperial Bank of Commerce, Bamsco and Co. of the Bank of Nova Scotia, and the Bankmont Company of the Bank of Montreal, hold and trade phenomenal amounts of corporate stock. For an assessment of the changing relationship of Canadian insurance companies to the capital market, see William C. Hood and O. W. Main, "The Role of the Canadian Life Insurance Companies in the Post-War Capital Market," C.J.E.P.S., Vol. 22, no. 4 (Nov. 1956), pp. 467-480.

⁸As is indicated in Table 5-13, loans by banks to other financial institutions constitute a large proportion of the total loans of the banks (in fact, in 1936 it was larger than to any other market).

⁹Robbins and Terleckyj, op. cit., p. 33.

"back offices" which are concerned with the routine functions connected with processing the desk loads of paper which circulate in the financial community. Locationally, they are more closely tied to the financial community focused on the money market core. This is so largely because of the influence of "top management."¹⁰ This elite group does not function exclusively in the money market core, but also runs large organizations including functions with less pressing needs to be proximate to the core activities. This elite's need for fast and frequent communication, and therefore a location near to the core, also explains the location of many of the more routine functions for the elite most frequently desire to keep them nearby.¹¹

Financial communities are physically extremely compact and this locational concentration is primarily a result of the nature of information flows within those areas. Also, it is primarily the size and nature of these information flows which differentiate one financial community from another in their ability to provide financial services successfully.¹² In many respects, the entire core of the financial community is a complex arrangement for the marketing of

¹⁰Management includes the specialists of the money market core and the top management of large banks, insurance companies and other financial firms.

¹¹Ibid., p. 41.

¹²The exchange of financial intelligence is not the only reason for such clustering. Also important is the physical need to move money and the papers showing ownership rights, and the indebtedness for which it is exchanged. [Carl Madden even considers this matter of delivery to be of the most importance. Carl H. Madden, "The New York Money Market" in The Money Side of the Street (New York: Federal Reserve Bank of New York, 1959), pp. 7-17.]

information. In an investment market, a premium will normally be paid for reliable information, and this premium will be very sizeable when the investment market is characterized by high risk. The stock market, for example, has been described as "the arbiter of the value of information."¹³

Uncertainty necessitates fast and frequent communication, both in negotiating for transactions and in keeping abreast of developments affecting the market and as Robbins and Terleckyj have commented:

...when the uncertainties of an undertaking are great, its participants have to be close together in order to operate with maximum effectiveness. Money market specialists have an ever-present problem of adapting their resources to meet swiftly changing conditions. Sometimes the supply of funds may overflow available investment outlets; at other times unfilled investment needs may exist. Whether the specialist takes title to financial instruments or acts only on behalf of clients, his job is to see that buyer and seller are brought together through an efficient market mechanism. In the process of adjusting supply and demand, the prices of the paper in which the specialists deal are subject to rapid changes. Since the specialists, or the firms they represent, often have large amounts of funds at stake, the risk exposure is high.

The primary protection against the hazards of doing business in this taut and fickle environment is knowledge--of the play of forces affecting money-flows, of impending changes, of the attitudes of regulatory authorities, of clients' buying or selling dispositions, and of a host of other possible influences. This knowledge is, in part, the product of a counterplay of ideas among the specialists. The benefits of this exchange are derived through continuing relations rather than by the sporadic transfer of information. There is more than psychological comfort--although perhaps this too is a factor--in the intimacy that permits brokers and dealers to expose their views to the accumulated wisdom of their compatriots through frequent personal meetings and lengthy conversations. In short, the participants in the money market are clustered together because

¹³Henry G. Manne, Insider Trading and the Stock Market (New York: The Free Press, 1966), p. 47.

the 'costs' of buying and selling can be minimized by maintaining direct and continual contact with the market. It is desirable for them always to know 'what the market is'--the terms on which business can be done. And this knowledge reduces the cost of transactions in the sense that it enables the participant to avoid being 'off the market'--doing business on terms unnecessarily unfavorable. Though difficult to express quantitatively, such a cost is crucial in a market as competitive as that in which financial instruments are traded.¹⁴

In the money market core and the closely related functions of the inside ring, it is not the exchanges, whether in the form of the trading floor or an electronic network, which is the prime centralizing force; they facilitate the operation of the money market, but the activity which takes place there is only the final summation of the information exchange which has gone before. Information emanates from this source but a great deal of it, such as stock quotations, are standardized and easily and rapidly transmitted. It is actually more feasible to move the formal exchanges out of the financial district than any individual trading specialist (although they could be moved all at once).

The prime centralizing factor in the financial community is the continuous interplay of intelligence among the specialists and their research staffs. Conceivably, this exchange could be made electronically from one section of the country to another, for much of the exchange of information is made by this medium within the financial community. But most of the electronic exchange of information is made on the basis of prior face-to-face contact. When stripped of its electronic spaghetti, one finds that at the center

¹⁴Robbins and Terleckyj, op. cit., pp. 33-34.

of the communications system is a method of information exchange not greatly different from that of medieval European financial centers. One reason for this is the need for trust. Vast amounts of money are moved daily on the basis of advice, and equally vast amounts are transferred without the benefit of a written agreement but on the basis of understandings and custom. Eliot Chapple has commented that

so highly developed is the communication network that one might suppose that the more 'primitive' face-to-face interaction is no longer necessary. Certainly, messages can be transmitted from person-to-person with remarkable speed, but they contribute very imperfectly to the nature of the emotional (and behavioral) adjustment of the individuals concerned. The telephone...is merely a temporary mediator, limited in the length of time it can be used and in the completeness of the interaction which it makes possible. Distance which prevents face-to-face interaction, is still a barrier to be overcome.¹⁵

Chapple even maintains that the great contribution of modern technology in facilitating interaction is not the telephone but the sharp increase in the frequency of travel made possible by the jet airplane.

It would appear that there is a difference in the nature of the information flow within the financial community and flow into and out of it. Within the community there is an intense interchange of information connected with the decision-making process and as yet technological and organizational advances have not been sufficient to allow its dispersion, even within the urban area. On the other hand, technology and organizational improvements appear to have

¹⁵Eliot D. Chapple, Culture and Biological Man (New York: Holt, Rinehart and Winston, 1970), pp. 195-196.

greatly increased the rate at which relevant information is fed into and disseminated outward from the community. The telegraph and teletype--so useful for the transmission of standardized information such as market prices, the telephone, and various transportation innovations have been capable of handling the less intense external streams of information but unable to cope with the intensive information exchange within the financial community.¹⁶

2. Measurement of Financial Decision-Making

As Donald Kerr points out,

finance is varied and complex and the problems of securing data to measure its magnitude and character spatially are formidable....There is in finance no over-all total figure of value and consequently no possibility of abstracting 'value added'...and it is unlikely that an aggregate figure, if one were available, would have much meaning.¹⁷

This is particularly true of the higher levels of financial decision-making. Attempts have been made to measure the distribution of finance in terms of clearing house statistics,¹⁸ but these only reflect the total economic activity from all sectors present in the region served by the clearing house. Similarly, deposit statistics are more a reflection of the economic size of the city than of the

¹⁶Robbins and Terleckyj comment that a medium size over-the-counter house on Wall Street, if it moved its operations to Los Angeles and maintained its direct lines to New York, would have a monthly phone bill of a staggering 640,000 dollars, as opposed to their monthly cost of 420 dollars on Wall Street.

¹⁷Donald Kerr, "Some Aspects of the Geography of Finance in Canada," The Canadian Geographer, Vol. 4, no. 4 (1965), p. 175.

¹⁸See, for example, Wilbur McCann, Los Angeles, Financial Center of the West (Los Angeles: Department of Water and Power, 1966).

amount of financial decision-making occurring in the center. Employment figures are readily accessible in more recent years (although not for much of the last century). Yet, they reflect the total employment in finance, the majority of the total being made up of people employed in the "street offices" of financial institutions and these are roughly distributed as the population and differ little in this regard from that of retailing. The mapping of assets has somewhat the opposite effect; it overemphasizes the headquarters location as a center of financial control and to some extent overlooks the higher level decision-making which may occur in regional offices. But, when these asset figures are aggregated, they are probably the best description of the distribution of financial nerve centers. The key to an understanding of the processes involved in the spatial distribution of higher level financial decision-making is found in the flow characteristics of financial intelligence. This presents a further problem in quantification. The importance of the information is not necessarily reflected in the mass transmitted--it has great variations in quality and therefore its profit-making potential.¹⁹ Most of it is very private and at least in North America (and especially the United States) some of it is illegal, at least in the eyes of Securities Commissions.²⁰ These difficulties exist even with the present-day level of statistical gathering and hoarding, in

¹⁹Even to-day telephone and telegraph records are not available for flows, within and in and out of the financial community for exchanges do not correspond with the borders of the financial community and even if they did they would give no indication of the quality of the information transmitted.

²⁰See Henry G. Manne, op. cit.

dealing with the past they are considerably magnified (and unfortunately, an explanation in the temporal mode is absolutely essential to an understanding of this locationally conservative activity). The result is that, to a considerable extent, reliance must be put on the records and evaluations of those who have been intimately involved in making financial decisions.

3. The Present-Day Distribution of Canadian Financial Activity

In North America, Toronto and Montreal rank very high as financial centers. The value of stocks traded on Toronto's exchange is only exceeded by New York. The assets of Montreal banks are only surpassed by the banks of New York and San Francisco, and Toronto's only by the above cities and Chicago. Toronto and Montreal are only exceeded in the assets of insurance companies by New York, Hartford, Boston, and Milwaukee. In terms of the ratio of financial employment to total employment, Toronto stands fourth behind Dallas, San Francisco, and New York, and Montreal seventh, exceeded as well by Minneapolis and Atlanta.²¹

Within Canada these two cities are overwhelmingly dominant. In terms of assets (see Table 2-1), both Toronto and Montreal have over ten times the assets of the next largest city, London, Ontario whose stature results largely from one very large insurance company and one large trust company. Most of the lesser financial centers owe their level of assets to large insurance companies. By 1969,

²¹Donald Kerr, op. cit., pp. 177, 181 and 184. Kerr's comprehensive assessment of the present-day distribution of Canadian finance makes it necessary to give only a brief discussion of this topic.

TABLE 2-1 Assets of Financial Institutions (millions of dollars)
According to Head Office Location for Selected Centers
(Based on an average 1959-1963)¹

	Montreal	Toronto	Vancouver	Winnipeg	London	Ottawa	Kitchener- Waterloo	Halifax
Chartered banks	10,300	9,000	nil*	nil	nil	nil**	nil	nil***
Insurance (life, property, and casualty)	3,500	4,500	50	950	850	850	900	30
Trust and loan companies	2,100	1,900	--	10	540	nil	100	270
Others (finance companies, investment funds, etc.)	500	2,100	350	440	210	nil	nil	--****
TOTAL	16,400	17,500	400	1,400	1,600	850	1,000	300

¹From D. Kerr, "Some Aspects of the Geography of Finance in Canada," Canadian Geographer, Vol. 9, no. 4 (1965), p. 179.

* Bank of British Columbia had not yet been established.

** Bank of Canada not included.

*** It has been assumed that the executive head office of the Bank of Nova Scotia is in Toronto.

**** Less than ten.

Sources: Financial Post Survey of Industrials (Toronto, annually)
Report of the Superintendent of Insurance for Canada (Ottawa, annually)

Toronto's banks had 3,070 branches in Canada and Montreal's banks had 2,882, employing 45,678 and 47,678 persons respectively.²² In terms of the labor force in finance, Toronto and Montreal (see Table 2-2) rank by far the highest, followed by Vancouver. In terms of the number of employees making over seven thousand dollars and over ten thousand dollars in 1961, which is a better indicator of the decision-making authority of the several financial communities, Toronto and Montreal stand out even more clearly and Vancouver still stands in third place, even though its location quotient is lower.

As can be seen from Table 2-3, Toronto's stock market is markedly dominant in terms of value of transactions, followed by Montreal and Vancouver. The only other exchanges are a struggling old one in Winnipeg and a more recent arrival in Calgary, the latter having well over twice as many stocks listed as the former.²³ Almost all corporate issues are underwritten by Toronto and Montreal institutions, as are most government issues.²⁴

In summary, there exists in Canada a bi-polar concentration of financial decision-making, and the two poles, Toronto and Montreal, are a major step in size above the remaining Canadian centers, only

²²Toronto Globe and Mail, December 10, 1969, p. B5.

²³For a detailed breakdown of present-day distribution of share trading on Canadian exchanges, see James E. Walter and J. Peter Williamson, "Organized Securities Exchanges in Canada," The Journal of Finance, Vol. 15, no. 3 (Sept. 1960), pp. 307-324.

²⁴Personal communication with the Investment Dealers Association of Canada. Also, see D. H. Fullerton, The Bond Market in Canada (Toronto: The Carswell Co. Ltd., 1962), p. 91. Some local and provincial issues are first floated in local markets because of legal restrictions and local prejudice.

TABLE 2-2 Distribution of the Total Labor Force in Finance; Distribution by Income Level; and Location Quotients for Total Financial Employment and for Selected Wage Categories, for Selected Metropolitan Areas--1961

City	Total wage earners	Total wage earners in finance	Average earnings in finance Male:Female	Number of wage earners earning \$7,000 or more	Number of wage earners earning \$10,000 or more	L.Q. total employment in finance	L.Q. those earning \$7,000 or more	L.Q. those earning \$10,000 or more
Montreal	739,442	19,627	4,768:2,452	1,901	838	1.32	1.56	1.85
Toronto	715,789	22,900	5,335:2,535	2,625	1,177	1.60	2.23	2.69
Quebec	116,202	2,221	4,249:2,369	172	63	.95	.89	.89
Ottawa	157,159	3,580	5,020:2,573	342	120	1.15	1.32	1.25
Hamilton	127,194	2,271	4,853:2,297	164	56	.90	.78	.72
London	67,010	1,587	4,999:2,320	149	56	1.18	1.34	.58
Winnipeg	178,217	4,094	4,926:2,183	355	124	1.15	1.20	1.15
Calgary	99,630	2,746	5,099:2,274	235	81	1.40	1.42	1.33
Edmonton	120,934	2,556	4,882:2,253	195	57	1.05	.98	.72
Vancouver	261,899	6,890	4,959:2,369	590	217	1.35	1.36	.58
Canada	5,366,977	108,803	4,668:2,278	8,901	3,291	-	-	-

Source: Census of Canada--1961, Series 3-3, Bulletins 10 and 11 (Includes "Savings and credit institutions," investment companies and securities dealers, but does not include insurance and real estate agencies).

TABLE 2-3 Average Annual Value of Stock Market Transactions on Stock Exchanges in Canada, 1962-1964¹

City	Value in millions of dollars	% of Canadian Total
Toronto	2,420	68.8
Montreal*	939	26.7
Vancouver	153	4.3
Calgary	3	0.1
Winnipeg	3	0.1
TOTAL	3,518	100.0

¹From Donald Kerr, "Some Aspects of the Geography of Finance in Canada," Canadian Geographer, Vol. 9, no. 4 (1965), p. 185.

*Includes both the Montreal and Canadian exchanges.

Sources: Toronto Stock Exchange Year End Review, 1962-64;
 Statistical Summary Montreal and Canadian Stock Exchanges, 1962-64;
 Vancouver Stock Exchange, 1962-64;
 Calgary Stock Exchange Official Yearly Summary, 1962-64;
 Winnipeg Stock Exchange Official Yearly Summary, 1962-64.

Vancouver being even remotely close. As well, among the lesser cities there is a considerable divergence in the character of the financial activity taking place, some, such as London and Kitchener, being insurance centers, others, such as Vancouver and Calgary, having a larger component of higher risk financial activity.

CHAPTER III

THE BROADER CONTEXT

A study of the location of financial activity cannot be written in a vacuum. Primarily because of the vital importance of intelligence to the financial system and the way in which it circulates within the financial community, the present distribution of important financial decision-makers is a reflection of unusually long-range processes. Also, the information upon which the financial community feeds emanates from a broad spectrum of the economy, and the actions (locational or otherwise) of financial intermediaries has a major impact on the other sides of society.

Involved is the entire problem of the spatial growth processes of cities and locational trends in other sectors of the economy. The total urban structure and spatial economy have been influenced in a major way by the progressive reduction in the importance of distance as a locational factor. This loosening of the fetters of distance has not been universal, but instead selective. Some linkages are able to be stretched over long distances while other links remain rigid. Finance encompasses ties representing the most extreme cases. Depending upon which links are expandable and which are not, agglomeration or dispersion may occur in the financial structure. The rate and sequence with which distance bonds are loosened, besides affecting financial distribution, may

have similar effects on other economic activities.

The evolution of finance is affected by and influences the overall process of urban growth. By itself and through its influence on the location of the general administrative function within the city, it is increasingly the raison d'être of the urban core. Also, it has had an indirect influence on the location of other functions such as manufacturing, emanating primarily from the period when information on investment opportunities was spatially biased and investment over distance involved considerable uncertainty.¹ The location of financial activity, in turn, is affected by the local or regional economic environment, again primarily during the period when the information necessary for long-range investment and the attraction of funds was spatially restricted. The study of the location of financial activity must therefore be written within the context of a body of literature dealing with broader spatial economic growth processes. As has been pointed out in Chapter II, financial intermediaries, besides actually moving funds, are primarily dealing in the information which must precede and accompany this transferral. Thus, of relevance is the literature on the nature of information transfer and decision-making, especially within and between

¹See, for example, F. Kenneth Hare, "A Policy for Geographic Research in Canada," Canadian Geographer, Vol. 8, 1964, p. 115. Hare stresses the crucial importance of finance capital in economic development, and maintains that the origin of finance capital is still a powerful determinant of location. Also, note the spatial variations in discount interest rates presented in such studies as R. M. Breckenridge, "Discount Rates in the United States," Political Science Quarterly, Vol. 13 (March 1968), pp. 118-142. Physical proximity to the Eastern United States' financial intermediaries was a valuable thing as late as the last part of the last century. Also, note Allan Pred, The Spatial Dynamics of U.S. Urban-Industrial Growth, 1800-1914 (Cambridge: M.I.T. Press, 1966), p. 80.

organizations and within an urban system. There are, as well, a few elements of static location theory which have some applicability to financial location. A certain amount of valuable material has also been written by economists and sociologists on the concentration of economic power, which is of obvious relevance to the subject at hand. Finally, there is a short list of material which has been written on the spatial aspects of financial activity, whether as a problem in organizational distribution or obliquely, as reflected in variations in interest rates, or as an aspect of urban growth.²

1. Spatial Growth Processes

The spatial aspects of economic growth in general, have received considerable attention, even if the spatial growth processes of financial intermediaries have not. On the whole economic growth has been the legitimate concern of the "dismal science" and of others who have emphasized capital formation, mobilization, and technological progress, but yet the spatial aspects of economic growth have not been ignored. Some studies have been global in their scope, dealing with the problems of international variations in income. Others have reduced the scale and try to explain the continuation of regional disparities, and almost inseparably from this, have centered on the role of the city in relation to its hinterland.³ Most of the works

²Space limitations prohibit a consideration of anything more than a skeletal outline of the sometimes broad literature dealing with many of these subjects. A more complete citation of the literature can be found in the bibliography.

³For example, see Gunnar Myrdal, Rich Lands and Poor (New York: Harper Brothers, World Perspectives, Vol. 16, 1957) and Economic Theory and Underdeveloped Regions (London: Methuen,

on spatial economic growth are variations on the center-periphery model, and involve some version of the "growth pole" idea.⁴ The export-base theory of Innis and his school, and the sector theory, which emanated from the empirical observations of Colin Clark and Allan Fisher, are more growth models than spatial models, although they can have important spatial implications. The export-case theory, for example, whether used to explain growth of regions or of cities, hypothesizes that the factor initiating growth and determining its extent, is the export base. Fay and Creighton, among others, have merged this theory with a center-periphery model and evoked a description which is particularly fitting in portraying the spatial evolution of the Canadian economy.⁵ Duesenberry has provided a useful variation on this theme.⁶

University Paperbacks, 1963, originally published 1957); Albert O. Hirschman, The Strategy of Economic Development (New Haven: Yale University Press, 1967); J. R. P. Friedmann, Regional Development Policy (Cambridge: M.I.T. Press, 1966); Edward L. Ullman, "Regional Development and the Geography of Concentration," Papers and Proceedings of the Regional Science Association, Vol. 4 (1958); J. Williamson, "Regional Inequality and the Process of National Development," Economic Development and Cultural Change, July 1965 (Part II); Eric E. Lampard, "The History of Cities in the Economically Advanced Areas," Economic Development and Cultural Change, Vol. 3 (Jan. 1955); William Alonso, Industrial Location and Regional Policy in Economic Development. Center for Planning and Development Research, University of California, Berkeley, Paper No. 74.

⁴See Francois Perroux, "Note sur la notion de 'pôle de croissance'," Economie appliquée, 8 (Jan.-June 1953), pp. 307-20.

⁵C. R. Fay, "The Metropolitan Market," Journal of the Canadian Bankers Association, Vol. 34 (1926-27), pp. 181-192; Donald Creighton, Dominion of the North (Toronto: Macmillan, 1957).

⁶James S. Duesenberry, "Some Aspects of the Theory of Economic Development," Explorations in Entrepreneurial History, Vol. 3, no. 2 (Dec. 1950).

Incorporated in the growth-pole conception is the idea of initial advantage,⁷ the value of being able to externalize diseconomies and internalize economies, and a myriad of other advantages for economic activity which are spatially biased towards a city on one scale or a cluster of cities on a broader one.⁸ Most of the studies in one way or another are dealing with the relations between industrialization and urbanization. Through the multiplier effect, the impetus given to the cities' growth by manufacturing is accentuated by expansion in the tertiary sector.⁹ The point where the marginal costs exceed marginal productivity of increased urban size appears not to have been reached even in the largest metropolitan centers of today.¹⁰ These center-periphery models have tended to be general in nature and the process involved in their portrayal can be expressed by Myrdal's term, "circular and cumulative causation," wherein each stage of development is a function of all previous stages, and normally a change does not bring forth contradicting forces, but instead supporting changes of positive feedback.¹¹ The

⁷Initial advantage serves as an "umbrella to cover three overlapping ideas: that existing locations are usually characterized by tremendous inertia and a temporal compounding of advantages; that existing locations often exert considerable influence on subsequent plant location decisions; and that once concentration is initiated, it has a self-perpetuating momentum" (Allan Pred, op. cit., p. 15).

⁸See Hirshman, op. cit., pp. 55-61 and Alonzo, op. cit., pp. 1-28.

⁹Colin Clark, "The Economic Functions of a City in Relation to its Size," Econometrica, Vol. 13 (1945), pp. 97-98 and Lampard, op. cit., pp. 99-101.

¹⁰William Alonzo, Equity and its Relations to Efficiency in Urbanization, Center for Planning and Development Research, University of California, Berkeley, Paper No. 78.

¹¹Myrdal, op. cit., p. 13; also, see Pred, op. cit., p. 15.

present consideration of the evolving distribution of higher level financial decision-making is presented primarily in terms of a center-periphery arrangement and the endogenous growth model of finance is also of a "positive feedback" nature.

An older variation in geography of the growth-pole conception has been the concern with metropolitan dominance and urban primacy.¹² Jefferson, in his early paper on the theme of the primate city, pointed out that urban hierarchies tend to gravitate in the direction of primacy rather than to the "rank size", "normal" pattern.¹³ A. James Rose has constructed a model largely based on the Australian experience, supporting the thesis that "normal" is a primate distribution.¹⁴ While studies such as Rose's are dealing with the general ordering within urban systems and not with particular sectors such as finance,¹⁵ aspects of their arguments are similar to that offered in regard to the financial structure.

A model of the distribution of wholesaling recently put forth by Vance, emphasizes exogenic forces influencing the pattern of wholesaling, and to a greater extent than the central-place model,

¹²These topics go back in the literature at least to Mark Jefferson's, "The Law of the Primate City," Geographical Review, Vol. 29 (1939), pp. 226-232.

¹³See, for example, B. J. L. Berry, "City Size Distributions and Economic Development," Economic Development and Cultural Change, Vol. 9, no. 4 (July 1961), pp. 573-87.

¹⁴A. James Rose, "Dissent from Down Under: Metropolitan Primacy as the Normal State," Pacific Viewpoint, Vol. 7, no. 1 (May 1966), pp. 1-27.

¹⁵Urban size and the amount of decision-making in a financial community are not necessarily related, as is suggested by a comparison of San Francisco and Los Angeles.

it explains the geography of settlement.¹⁶ The present thesis, in a somewhat similar vein, takes the pattern of financial location as more of a reflection of the lineaments of the expanding intelligence network, and the characteristics of the flow along the network (although in certain instances, where restrictions in the flow were particularly great, the result was a greater role being played by endogenous forces than in the case of wholesaling). As well, it should be remembered that finance shared a common origin with wholesaling which further enhances the relevance of this model to the present one. Also of immediate relevance to the present work are comments of such people as Meier, Hall, Webber and Abler on the role of communications as a major centralizing influence, both within cities and the system of cities.¹⁷ They rightly picture the center (whether in urban or international space) as a medium of intercommunications. Meier and Hall in looking into the future foresee improvements in communications as primarily a centralizing influence, Hall indicating that "the economic life of the world will be concentrated into a few major information centres."¹⁸ In a similar vein, Meier suggests that technology has speeded up and thereby increased the

¹⁶James E. Vance, The Merchant's World: The Geography of Wholesaling (Englewood Cliffs: Prentice-Hall, 1970).

¹⁷Richard L. Meier, A Communications Theory of Urban Growth (Cambridge: The M.I.T. Press, 1962); Peter Hall, The World Cities (New York: McGraw-Hill, 1966); and Melvin Webber, "Order in Diversity: Community without Propinquity," in Lowdon Wingo, Jr. ed., Cities and Space: The Future Use of Urban Land (Baltimore: Resources for the Future, 1963); Ronald Abler, The Geography of Intercommunications Systems: The Post Office and Telephone Systems in the United States (unpublished Ph.D. thesis, University of Minnesota, 1968).

¹⁸Hall, op. cit., p. 240.

number and range of possible person-to-person contacts where crucial decisions are made.¹⁹ Abler, following Webber, indicates that the result of the "socialization" of communications' costs (i.e., there is no cost or time advantages of one point over another in communicating) is the dispersion of intelligence-oriented industry first within the city and subsequently within the whole nation. On the present work, however, it is found that increasingly as communications improve, the trend has been towards centralization, all other things being equal. There appears to be a progression in the highly intelligence-oriented financial industry through at least two states. The initial state occurs when communication limitations result in relatively restricted hinterlands, where finance emanates from endogenous forces and distance engenders the formation of frequent nodes in the flow pattern of national and international finance. This, then, evolves into a state where large and established financial communities provide an exogenous force which greatly influences the nodes and their regions.

Abler implies that a third stage is coming across the threshold, where in the areal socialization of communications, costs will result in the bursting of information-tied functions over national or international space. However, many types of communications media, such as the postal system and the telecommunications system (within certain areas) have become "socialized" but, as yet, even within urban areas, there is very little evidence of fragmentation of the financial community. While the postal service can be described as

¹⁹Ibid., p. 241.

socialized, and the telecommunications system seems to be approaching this state (and certainly it long ago became a reality in regard to particularly valuable information), as yet, these media cannot cope with the intensity of relations within financial communities and become a substitute for personal communications. The electronic media are apparently still unable spatially to broaden the particular communication advantages found within the financial community. Along with the use of aircraft, which is probably the most effective means of enabling the fragments of the financial community to disperse,²⁰ telecommunications appear to allow only smaller pre-existing financial communities to undertake a holding action in what is still a trend towards centralization.²¹

2. Information Flows and Organizations

A vital ingredient in the theoretical brew is the concept of "uncertainty reduction" through information acquisition. Uncertainty may result from "ignorance owing to lack of information, risk owing to the spread of possible values for a random variable and economic

²⁰See Eliot D. Chapple, Culture and Biological Man (New York: Holt, Rinehart and Winston, 1970) for a comparative assessment of telecommunications and aircraft as communications media.

²¹Cooperation between financial activities in various centers is not new. See James E. Walters, The Role of Regional Security Exchanges (Berkeley: University of California Press, 1957). Walters indicates that over 50% of the trading on the U.S. regional exchanges is dual trading of stocks also listed on the New York Exchanges. He states that it is a relatively ineffectual system, and forms a tenuous cover for the declining importance of regional issues. The dual trading could be eliminated by the simple expedient on the part of the New York Exchanges of offering reasonable discounts on commission rates to non-member firms which originate business.

indeterminacy owing to the nature of most game solutions."²² In finance, Paul Cootner, in studying the movements on financial markets (which are in considerable measure influenced by the decisions of financial intermediaries) has concluded "that these markets are examples of rational and well-organized behavior by risk averters,"²³ and "the primary protection against the hazards of doing business in the taut and fickle environment (of the financial community) is knowledge."²⁴ Moreover, this uncertainty "has a spatial dimension..., not only because the inherent stability of phenomena may vary from place to place, but also because communication channels diffuse information unevenly in space, and because perception varies."²⁵ Little work has been done on the spatial distribution of sources of uncertainty for particular activities but there has been considerable work on the movement of information. Of particular relevance are those studies considering the movement of information within a system of cities, within particular groups and communities, and within and

²²Martin Shubik, "Information, Risk, Ignorance and Indeterminacy," Quarterly Journal of Economics, Vol. 68, no. 4 (Nov. 1954), p. 639. This article is one example of a large body of literature dealing with the nature of decision-making. See, for example, Herbert A. Simon, Administrative Behavior (New York: Free Press, 1945); R. M. Cyert and J. G. March, A Behavioral Theory of the Firm (Englewood Cliffs: Prentice-Hall, 1963); Allan Pred, Behavior and Location, Parts I and II, Lund Studies in Geography, No. 27, Lund: Department of Geography, Lund University, 1967), especially pp. 40-64 of Part I.

²³Paul H. Cootner, "Rationality and Risk in Financial Decision-Making," in George Fisk, The Frontiers of Management Psychology (New York: Harper and Row, 1964), p. 243.

²⁴Sidney M. Robbins and Nestor E. Terleckyj, Money Metropolis, New York Metropolitan Region Study (Cambridge: Harvard University Press, 1960), p. 34.

²⁵Julian Wolpert, "The Decision Process in a Spatial Context," Annals of Assoc. of Amer. Geog., Vol. 54 (1964), p. 547.

between organizations.

The material on information diffusion and the parallel and inseparable work on innovation diffusion and migration, both within geography and in other disciplines, is extensive.²⁶ Led by Hagerstrand, stochastic models have been built and tested, which fairly closely describe the movements of particular types of information during a period of time. Much of the work in this field has been concerned with a diffusion of a phenomenon among individual men who are free to react to it. Most frequently, the studies have dealt with a relatively dispersed population. However, some have been specifically concerned with the dispersion of information within an urban system. There is some questionable evidence indicating that diffusion of information is spatially-biased, in the sense that it percolates downward through the urban hierarchy.²⁷ This has been found, for example, in the study of migrations where a stepped pattern of information transmittal has been noted.²⁸ It has also been

²⁶For a review of the literature, see Everett M. Rogers, Diffusion of Innovations (New York: Free Press, 1962); Gunnar Olsson, Distance and Human Interaction: A Review and Bibliography (Philadelphia: Regional Science Research Institute, 1965); Lawrence Brown, "Models for Spatial Diffusion Research: A Review" (Evanston: Northwestern University, Department of Geography Research Report No. 10, 1965); Peter Gould, Spatial Diffusion (Washington: Association of American Geographers, 1968).

²⁷This assumes that (1) there is an urban hierarchy, and (2) all information originates at its top. However, even without the questionable "hierarchy", information originating from anyplace probably soon reaches larger centers fairly soon and the diffusion of the information on the whole progresses through the ranks to centers of smaller size.

²⁸It is implicit in Jane Moore's early Cityward Migration (Chicago: University of Chicago Press, 1938) and much of Hagerstrand's work, for example, Migration in Sweden: A Symposium, Lund Studies in Geography, No. 13 (1957).

noted in the diffusion of innovations.²⁹ The nature of the information flow that such studies were dealing with was primarily within private information fields. Organizational constraints were not considered.

With respect to the nature of information circulation within a community, and the nature of acceptance of the ideas, Hagerstrand has commented that

the importance of the neighborhood effect suggests that the links between individuals in circles of acquaintances and friendship play a remarkably important role in directing information and influence. Perhaps it is not too surprising that this is so in a farming population. But the same thing seems also to hold true in population groups which should be fully qualified to react on written information alone.³⁰

The somewhat medieval communications system between the elitist groups in the financial community (see Chapter II) provides ample evidence of Hagerstrand's statement. Within the financial community, a great deal of information enters through the internal organizational networks of the various institutions; other information is of a general public nature, such as that received in the financial press and over quotation services of the various markets, and still other information emanates directly from the private contacts of the various decision-makers. Even the apparently public information often only influences a very few people and is mediated through face-to-face contact to a larger group, either to reinforce existing

²⁹Torsten Hagerstrand, "Aspects of the Spatial Structure of Social Communication and the Diffusion of Information," Papers, Regional Science Association, Vol. 16 (Kracow Congress, 1965), p. 28.

³⁰Ibid., p. 28.

knowledge, or present new information.³¹ The process of adoption of an idea (about an investment opportunity, for example) tends to go through several stages,³² the most important being what might be called the awareness and interest stage. A generalization we might make is that impersonal sources are most important at the awareness stage, and personal sources are most important at the evaluation stage in the adoption process.³³ The external face-to-face contacts of decision-makers in the financial community play an important part in the making of decisions, and particularly non-standardized decisions. Besides, a considerable number of the operations of the financial community would not be possible without trust between the parties to a transaction. At least in the initial stages of association, this trust and personal knowledge could be best acquired through face-to-face contact. Once a relationship has been established, more impersonal means of communication could be utilized, at least on a short-term basis. The private information field of an individual decision-maker falls off quite rapidly with increases in distance. Also, a very important factor influencing the information resources of an individual decision-maker is the group to which he belongs. If this group is highly concentrated, to be privy to information and advice, one must, of necessity, be nearby.³⁴

³¹Elihu Katz and Paul F. Lazarsfeld, Personal Influence (New York: Free Press, 1955).

³²There is no agreement on the number, but Rogers has taken six. Everett M. Rogers, op. cit., pp. 80-81.

³³Ibid., p. 99.

³⁴Although the next best location would be one in a similarly-sized community within the financial system.

There have been some studies on the spatial aspects of information flow within organizations, and its relationship to the distribution of decision-making authority. Thomas Marschak and Isard and Tung have undertaken normative studies which will be considered here, but the business administration literature is replete with material on the organization of business structures, although not on a specifically spatial basis.³⁵ Thomas Marschak constructed a model of a simple information system. Although primarily geared to the continuing discussion in socialist economics, concerning a decentralized or centralized control system, it contains some interesting observations which are pertinent to the process of determining the location of financial decision-making. In determining the worth of two alternative solutions (in terms of time consumed in acquiring information and reaching a decision), he observes that if the transmission time of sending data from dispersed observers to a central agent is too great, no computing capacity (ability to use information at the central agency), however infinite, can compensate for the lag in transmission.³⁶ This is of central importance in explaining some aspects of the location of finance, for as will be pointed out in

³⁵Thomas Marschak, "Centralization and Decentralization in Economic Organizations," Econometrica, Vol. 27, no. 3 (July 1959), pp. 399-429; W. Isard and T. H. Tung, "Some Concepts for the Analysis of Spatial Organization," Papers and Proceedings of the Regional Science Association, Vol. 11, pp. 17-40, Vol. 12, pp. 1-25. From the Business Administration literature, for example, see Jacob Marschak, "Towards an Economic Theory of Organizations and Information," in R. M. Thrall, et al., ed., Decision Processes (New York: John Wiley, 1954); Charles A. Myers, The Impact of Computers on Management (Cambridge: M.I.T. Press, 1967). Although not specifically spatial, it has important spatial connotations when discussing centralization and decentralization within organizations.

³⁶Thomas Marschak, op. cit., p. 426.

succeeding chapters, when the quantities of information are great (such as with certain aspects of mining finance, or with large volume-low value transactions) decision-making tends to shift from the centralized solution to a decentralized one. Another interesting observation of Marschak's is that "placing of sufficient computing capacity at the disposal of the central agent may reverse the preference for the decentralized over the centralized system."³⁷ In both of these statements, Marschak thus stresses the importance of the decision-making capability (of the center) as a factor in organizational centralization or decentralization.

Isard and Tung have noted the major cost components of decision-making, and the gathering and movement of information necessary for this activity.³⁸ They are: the cost of collecting information, transmission costs, the cost of processing and beneficiating information, and the cost of the time taken by officials in reaching a decision. They propose cost curves for these activities, the costs varying from 0 centralization to 100 per cent centralization.³⁹ With these costs, they attempt to integrate "overview advantages"⁴⁰

³⁷Ibid., p. 428.

³⁸Isard and Tung, op. cit., p. 35.

³⁹These curves are purely hypothetical and are not based on any empirical research and are meant mainly for pedagogical purposes. However, in light of the talents of these two men, their estimates of the efficiencies of the various costs are interesting.

⁴⁰A decision-maker at the center of an organizational system is often cited as having a greater amount of information available, and to reach a more coordinated and consistent set of decisions, all other things being equal. He is thus said to have "overview advantages."

and "participation potential advantages."⁴¹ Although, as they readily acknowledge, this cannot explain the distribution of decision-making within any particular organizational system, it does serve as a useful conceptual framework for the analysis of the distribution of decision-making. For example, with regard to the cost components, it provides a means of better understanding the effect that a centralization of non-financial organizations has on financial ones. In effect, the first two cost components, and part of the third, are absorbed by the non-financial corporations.

Opposed to the normative approach of Marschak, and Isard and Tung, Olaf Warneryd and some other geographers have made a preliminary stab at constructing an empirically-based time-space model of organizations,⁴² as part of an attempt to construct a process model of change within an urban system. In the study, which is based on the changing structure and contact flows of public organizations in Sweden, they noted that the national and regional control centers are becoming more concentrated within the system.

Geographical marketing theories, such as that of Christaller, appear to have serious weaknesses as an explanation of the location of higher level financial activity. The irregular distribution of the information needed for financial operations and of agglomeration economies, in general, are a more potent locational force for higher

⁴¹A variation on the population potential construct applied to a hierarchical organizational structure.

⁴²Olaf Warneryd, Lars Nordstrom, and Britts Ohlsson, "Organizations as Physical Systems," in Olaf Warneryd, Interdependence in Urban Systems (Goteborg, 1968).

level finance than a minimizing of the distance information must flow in order to serve the market for financial services. The threshold concept is of limited value in that with an ability to conduct financial transactions easily over great distances markets become increasingly open to financial communities from many locations. Increasingly regional markets lose their distance caused protection. In a relatively frictionless space, what becomes important is not the size of the local market but rather the access to information which a function such as a brokerage house possesses--and this information is increasingly not a function of the relative distance of financial communities to particular areas.⁴³ As well, in relatively frictionless space, the range concept loses meaning. The range extends to the entire population and no point has advantages over another because of proximity to the market for financial services. The linkages become totally interpenetrating. In such a situation, superior service depends upon better information supplies and superior talent in utilizing that information to give financial service (such as a brokers' advice). For a financial community, in general, this is largely dependent upon the size of that community.

3. The Literature on the Location of Financial Intermediaries

There has been a very limited number of studies directly concerned with the location of financial intermediaries. The most

⁴³This is not to deny the applicability of the marketing hypothesis to the lower levels of financial activity, such as branch banks and insurance agents (the street functions) or to the earlier periods in the evolution of the higher level financial functions.

pervasive view among the few people who have considered this problem is that popularized by N. S. B. Gras. In his Introduction to Economic History, he expresses the view that a metropolitan economy proceeds, almost organically, through several phases, the fourth and last being the financial phase. He states that the developing metropolis is usually under the tutelage of some fully developed metropolis. Gradually, a large measure of financial independence is secured and then the new and old are equal, at least in function. No reason is given as to why this financial independence should come about. Why, with improved communications, would the "more mature" metropolis not increase its dominance of the "less mature" ones? What disrupts the whole process of circular and cumulative agglomeration in the larger center, a center which would possess a far flung information gathering and disseminating system, and greater access to profitable information, greater scale economies, including such things as a large specialized labor pool, more extensive research facilities, and more prestige? No explanation is given. However, this was written almost fifty years ago. But, it is unfortunate that this view of the evolution of finance has remained in circulation to the present. Later writers who have implied that centers of a similar order in the hierarchy or relative position along a rank-size continuum have an equal compliment of financial decision-making, have offered an explanation which is scarcely more sophisticated than Gras'. This idea implies that the level of financial decision-making in a financial community is a direct function of the size and wealth of the city and region in which it resides. This flies in the face of reality--and reality differs from the theory not because

of its divergence from the simplifying assumptions of the model, but because of a totally different process at work.

Gras was ignoring the continuing process of communications improvement, and was picturing the financial system as endogenous to local regions. Meier, Hall, Webber et al., at a later time, emphasized the centralizing influence of communications, even though they didn't consider that, because of inertia in the system, the present distribution may be a reflection of the relationship between the communications change and the periods in which "information industries" evolved.

H. A. Innis, C. R. Fay, and Donald Masters have adopted the Grasian scheme in explaining the distribution of financial power in Canada.⁴⁴ Masters, in attempting to explain the growth of Toronto to become the financial equal of Montreal, took Gras' scheme as an explanation, with the added flourish that Toronto gained financial independence "because it was within the hinterland of both Montreal and New York" and its "emergence into semi-independence was a result of the pull and tug of divergent forces."⁴⁵ Becoming the victim of his own metaphors, he maintained that Toronto did not enter into the orbit of one or the other larger center because of their opposing pulls. In reality, there is no reason at all why it could not have

⁴⁴H. A. Innis, "Toronto and the Toronto Board of Trade," The Commerce Journal, Annual Review--1939 (Toronto: University of Toronto, 1939); C. R. Fay, "The Metropolitan Market," Journal of the Canadian Bankers Association, Vol. 34 (1926-27), pp. 181-192; Donald Masters, "Toronto vs. Montreal, The Struggle for Financial Hegemony, 1860-1873," The Canadian Historical Review, Vol. 22, no. 2 (June 1941), pp. 133-146.

⁴⁵Masters, op. cit., p. 134.

been completely dominated by both.

Donald Kerr, while working from a basically "Grasian" base, and that of the metropolitan dominance school of Canadian Economic History has produced one of the more penetrating explanations of the location of financial activity.⁴⁶ The present thesis differs with Kerr's in general approach and many individual points, and lays out a different interpretation of the causality of the distribution of financial decision-making.⁴⁷ It is intended to provide a general hypothesis on the location of various financial functions based primarily on the nature of various informational flows required for the performance of those functions. Kerr, however, has summarized many relevant questions with regard to the location of finance in Canada, and in particular the financial relationship of Toronto to the mining areas of Northern Ontario. In regard to this latter problem, some of his work will be incorporated in the portion of Chapter V dealing with the unusual locational criteria for financial intermediaries dealing in mining finance, a field with a great deal of uncertainty present. Somewhat related to Kerr's article is one by

⁴⁶See Donald Kerr and Jacob Spelt, The Changing Face of Toronto, Memoir II, Geographical Branch, Department of Mines and Technical Surveys (Ottawa: The Queen's Printer, 1965), pp. 78-84; Donald Kerr, "Some Aspects of the Geography of Finance in Canada," The Canadian Geographer, Vol. 9, no. 4 (1965), pp. 175-192; Donald P. Kerr, "Metropolitan Dominance in Canada," in John Warkentin, ed., Canada, a Geographical Interpretation (Toronto: Methuen, 1967), pp. 531-555.

⁴⁷The emphasis in the present thesis is on decision-making rather than on financial employment in general. For example, clearing house statistics are fairly representative of the volume of business flowing through banks of a particular center, and fairly closely approximate financial employment, yet they possess no functional relation to the total decision-making authority of the banks of that city.

William Goodwin in which the status of various American cities as managerial centers (including financial management) is portrayed for the early 1960's.⁴⁸

Among other works which have a general applicability to the present work is Jean La Basse's excellent book on the distribution of banking facilities and the spatial interaction of banks within the Lyon region.⁴⁹ It provides an excellent analysis of the flow of funds in the region and its relationship to the banking structure, but unfortunately only superficially examines why the banks are located where they are, and their locational relationship with the rest of the spatial economy.

Robbins' and Terleckyj's Money Metropolis is a comprehensive study of finance as a locational phenomenon.⁵⁰ It recognizes the complexity of locational factors impinging on financial intermediaries and is process-oriented, although unfortunately the book only treats the post war change in any detail. Of course, it is primarily concerned with the position of New York's financial establishment. Its most valuable contribution is a portrayal of the internal links of various functions within the financial community.

James Walter has noted the considerable decline in trading of regional issues on the various regional stock exchanges in the United

⁴⁸William Goodwin, "The Management Center in the United States," Geographical Review, Vol. 55, no. 1 (Jan. 1965), pp. 1-16. Also, see R. J. Johnson, "Commercial Leadership in Australia," The Australian Geographer, March 1966, pp. 49-52.

⁴⁹Jean La Basse, Les Capitaux et la Region, Etude Geographique (Paris: Librairie Armand Colin, 1955).

⁵⁰Robbins and Terleckyj, op. cit.

States, and provides an interesting analysis of the behavior of the participants in trading on the New York and regional stock exchanges.⁵¹ He attributes the decline in the trading of regional issues to the increased status of a New York listing, the growth of large companies and improved communication. The study is short-range, however, and historical substantiation of the longer trend and theoretical considerations of the process involved in the changing relationships are lacking. Jacob O. Kamm, in a 1942 study, assumes a decentralization of securities transactions with limited basis, in fact, and states broadly that political forces (from the rise of the nation state onward) cause decentralization.⁵² This view was unsubstantiated and did not represent reality even at the time of writing.

A further relevant article, by Chandler, provides some valuable insight into the causality of early shifts in the status of centers in the financing of early American railroads.⁵³ Jenks' work on the methods by which British capital flowed to developing areas is valuable in interpreting the location of the intermediaries servicing the movement, as is Spence's work on British mining investments.⁵⁴

Raymond W. Goldsmith has described some aspects of the

⁵¹James E. Walter, The Role of Regional Security Exchanges (Berkeley and Los Angeles: The University of California Press, 1957).

⁵²Jacob O. Kamm, The Decentralization of Securities Exchanges (Boston: Meader, 1942).

⁵³Alfred D. Chandler, "Patterns of American Railroad Finance, 1830-1850," The Business History Review, Vol. 28, no. 3 (Sept. 1954), pp. 248-263.

⁵⁴Leland H. Jenks, The Migration of British Capital (New York: Alfred Knopf, 1927); Clark C. Spence, British Investments and the American Mining Frontier, 1860-1901 (Ithica: Cornell University Press, 1958).

geographic expansion and distribution of financial intermediaries in the United States from 1900 to 1950.⁵⁵ The description is primarily in terms of various densities of financial services in several American regions. He also portrays, briefly, the continuing domination of the American financial structure by New York, despite the westward and southward movement of American economic activity in general. Among other studies touching on the location of financial activity, Jean Gottmann utilized finance as a prime illustration of Megalopolis' hinge role.⁵⁶ An earlier, and somewhat locational study is that of Parker B. Willis on the Federal Reserve Bank of San Francisco.⁵⁷ Like La Basse's study, this one, in part, is concerned with the flow of funds, in this case within the Twelfth Federal Reserve District. Harry Kircher has dealt with the problem of financial agglomeration in a static manner, attempting to correlate the size of a city's bank deposits with its interbank connections.⁵⁸ The study is primarily dealing with banking as a representative of the commercial flows of the United States, rather than with the decision-making power of the financial community as a whole, and does little more than describe bank size and interbank connections in the United States in 1960.

⁵⁵Raymond W. Goldsmith, Financial Intermediaries in the American Economy Since 1900, a study for the National Bureau of Economic Research (Princeton: Princeton University Press, 1958).

⁵⁶Jean Gottmann, Megalopolis (Cambridge: M.I.T. Press, 1964).

⁵⁷Parker B. Willis, The Federal Reserve Bank of San Francisco (New York: Columbia University Press, 1937).

⁵⁸Harry B. Kircher, The Geography of Financial Agglomeration in the United States, Ph.D. dissertation, Clark University, Department of Geography, 1962.

Although not specifically dealing with the location of financial intermediaries, studies by economic historians on the evolving pattern of discount rates and interest charges are valuable as they indicate the progress of the reduction of the uncertainty discount. The classic study is that of R. M. Breckenridge in 1898.⁵⁹ The statistics which he compiled for the period between 1893-1897 reveal a marked variation in discount rates in the United States, which is closely correlated with geographic distance from the North-eastern Seaboard, and to a lesser extent, with the size of the city (see Table 5-26). Lance E. Davis, broadening Breckenridge's study, has traced the progress of this integrative trend.⁶⁰ He concludes that by World War I, the short-term discount rates had been substantially reduced, attributing it to the growth of the national short-term capital market. Regional differentials in the long-term capital market also were largely eliminated by the same time, although lagging slightly behind the short-term rates. Some differential remained in the South and Pacific regions. Davis notes that there were many organizational changes promoting a national market, and takes particular note of the investment activities of the life insurance companies and the development of the formal securities markets, and the growth of mortgage banking. As illustration of the role of communications, it is interesting that Davis found that as late as "the

⁵⁹R. M. Breckenridge, "Discount Rates in the United States," Political Science Quarterly, Vol. 13 (March 1898), pp. 118-142.

⁶⁰Lance E. Davis, "The Investment Market, 1870-1914: The Evolution of a National Market," Journal of Economic History, Vol. 25, Sept. 1965, pp. 355-393.

first decade of the twentieth century, the connections across the Rockies were still tenuous."⁶¹ This may now be reflected in the surprisingly high stature of San Francisco as a financial center.

As one might anticipate with the study of the location of financial decision-making, the theoretical and empirical ingredients for the dish are many and varied, even if they are not exotic. The contents of this potpourri will now become an ingredient in the following interpretation of the process involved in the spatial allocation of financial decision-making in Canada.

⁶¹Ibid., p. 388.

CHAPTER IV

THE CHANGING SPATIAL RELATIONSHIP OF MONTREAL'S FINANCIAL COMMUNITY TO EUROPE AND CANADA, 1821-1871

Stephen Leacock, as late as 1942, declared that "in the commercial sense Montreal has been the capital of Canada from the later period of the old French Regime until to-day." Probably with a chuckle, he continued: "nor is it likely to lose this metropolitan pre-eminence, although it is quite possible that Vancouver may presently surpass it in population."¹ Leacock's pointed omission of Toronto aptly points out the threat to the urban status of McGill's environs, a threat of particular seriousness, if one accepts Gras' views on the eminence of finance in the urban caste system. Innis, in a fitting address to the Toronto Board of Trade, followed Gras' theme, and congratulated the city of his alma-mater on achieving its manifest destiny. In a more disquieting vein, he followed the theme to the end and saw that "new centres with metropolitan ambitions, such as Winnipeg, have begun to follow the same trend...and that these centres break off from Toronto, as Toronto broke off from Montreal."² By the time these men were writing, Toronto had indeed

¹Stephen Leacock, Leacock's Montreal, revised edition (Toronto: McClelland and Stewart Ltd., 1963), p. 159. Italics mine.

²H. A. Innis, "Toronto and the Toronto Board of Trade," The Commerce Journal, Annual Review (March 1939), p. 23.

become the equal, and in some respects the superior of Montreal in the size and complexity of its financial structure. As much as this transformation was somehow disreputable to Leacock, it was part of a normal and continuing evolutionary process to Innis. Disreputable, it may have been, but Innis' injection of the Grasian model into the Canadian scene is rather disconcerting. Master's accounting of what he saw as the process leading to the duality of Canada's financial industry is equally unsatisfying, and only deals with one part of the overall problem. Here, Toronto's growth to a financial center is seen as the result of its position at the intersection of the routes of penetration of New York and Montreal commercial interests; as a result of political battles over the 1870 Bank Act; the fruit of a 2½% difference between the travel time from the west to Toronto and Montreal respectively.³ Master's view that Toronto's emergence into financial semi-independence was the result of "the pull and tug of divergent forces" does not explain the process by which this would take place, and ignores the examples of other North American cities which were in the shadow of more than one financial center and still failed to evolve as a financial center, despite an otherwise propitious environment. The other specific consideration of this locational problem, that of Professor Donald Kerr, while nominally accepting Gras' hypothesis, has gone farthest in describing the rationale of the distribution of Canadian financial activity.⁴ But, as has been indicated

³D. C. Masters, "Toronto vs. Montreal--The Struggle for Financial Hegemony: 1860-73," The Canadian Historical Review, Vol. XXII, no. 2 (June 1941), pp. 133-146. The time difference is calculated from the 1888 Canadian Pacific Railway Time Table (Montreal, 1888).

⁴For the most extensive treatment, see Donald Kerr, "Some

above, a different interpretation is proposed in the present study: an interpretation which utilizes some of the factors suggested by Kerr, but which questions others, adds some, elaborates on others, and hopefully by reinterpreting the process involved in the location of finance, adds to his ground-breaking work.

This section and the one to follow are intended to set forth the empirical evidence necessary for the present interpretation.

These two major sections deal with the cumulative implementation of locational decisions made by Canadian financial intermediaries. It is clear that finance is an activity within which many parts are located in response to information availability, and under the pressures of the agglomeration economies of Marshall and Hoover, while others are attracted to consumer demand, much as retailing is. Information availability can act either as a strong centralizing force or as a decentralizing one; agglomeration economies promote the former, and consumer demand frequently promotes the latter. These centralization-decentralization tendencies furnish a unifying theme for the empirical work to follow.

In these two sections, the spatial growth processes are portrayed in a center-periphery framework, a changing structure in which (in the Canadian case) the periphery expands and the center splits. Initially, Montreal was clearly the center, but upriver Toronto reached the point where its financial service was comparable to that of the older city. A point was reached where the "center" could

easily be conceived as consisting of both the rivals, and the periphery became the expanded Canadian territory. The two stages are not discrete; the expanded relationship of Montreal and Toronto to the broader periphery occurred while Montreal slowly lost its dominance.⁵

The "Barons of Bay Street" did not really replace their counterparts on St. James Street as objects of agrarian resentment until after World War II. Allowing for a time lag inherent in these matters, this places the "arrival" of Toronto's financial community sometime in the previous decade. More precisely, Toronto's maturity as a financial community came with its domination of the mining securities trade, its acquiring a status as Montreal's equal in the financing of the "wheat economy," the railroads, and the new industrialism. These events did not commence to any substantial degree until the improvement in world economic conditions after 1896, the

⁵The "center-periphery" terminology is considered distinct from that of the "center-hinterland." The former attributes a structural connotation to the relation, the latter a functional one. While the definition of hinterland is not precise, the most common usage is that of Van Cleef, namely, "the area adjacent to a trade center within which economic and some cultural activities are focused largely on the primary center...." Kerr has used it with regard to finance, as the area under the financial sway of a given center. The center-periphery terminology is preferable because it does not innately emphasize functional links, and the idea of discrete zones of financial domination. It is possible, and in some cases probable, to have a peripheral region served from many financial communities and by the above definition not be in a hinterland. Financial relationships may reflect Haig's "friction of space," especially in an environment of poor communications. Here one may have distinct hinterlands. However, the quality of some financial services is dependent, not upon the distance to the consumer but upon the internal characteristics of the financial community. In respect to some financial functions, the periphery may be dominated, in a non-hierarchical manner, by the merged hinterlands of several financial communities. In this event, the term hinterland ceases to have much meaning.

Cobalt bonanza in 1903, and the depletion of many United States resources by the industrial boom of the last half of the nineteenth century. During the Laurier years (1896-1911), Bay Street entered a stage which might be compared to Rostow's "take-off."

But the roots of Montreal's loss of its supremacy are found in an earlier era. Despite that city's initial advantage and agglomeration economies, Toronto, on the arrival of the investment boom at the end of the century, became a feasible location for intermediary activity. This shift provides a focus for the initial center-periphery framework. The relationship of Montreal and Toronto, both collectively and individually, to the broader area of post-confederation Canada, provides the theme of the later model. The first is considered in the present section; the second in the succeeding one. Eighteen seventy is taken, somewhat arbitrarily, as the dividing line between the two sections. It is a logical division point, however. Around this time, British North America changed from a cluster of small colonies to a transcontinental state. Eighteen sixty-seven saw Confederation. In 1868, The Rupert's Land Act initiated the purchase which in 1870 more than doubled the area of the Dominion and removed a major obstacle to western expansion. In 1870, British Columbia was admitted to the federation only three years before a recession, which was the precursor of periodic and prolonged slumps interrupted only briefly by periods of recovery. It was a period of net emigration for Canada. British investment funds found outlet at home or in South America and the United States, and in the meantime Canada was the understudy, waiting in the wings, until the world's capital, labor, and interest moved northward. The real expansion of financial

capitalism had to wait. However, by 1870, money did not move exclusively through the guiding hands of Montreal's intermediaries; Toronto was in a position to share in what opportunities there were. It had the ability to launch a credible attempt at financing the C.P.R., to acquire two more banks between 1870 and 1880, and to have the head offices of 16 insurance companies with total assets, in 1881, of over six million dollars, compared with Montreal's 39, with over eight million in assets.⁶

Our study begins in 1821, at the time of what Creighton has called the beginning of Montreal's struggle for a second commercial empire.⁷ Eighteen twenty-one marks the close of the Montreal's control of the North West Company and the absorption of the Company itself into the Hudson's Bay Company. It also marks the transfer of the extensive financial activities of the Company into other financial fields, most notable of which was the Bank of Montreal, Canada's first bank of issue, deposit, and discount. Its charter, along with that of the Bank of Canada, appropriately passed the Lower Canada legislature in 1821. Its founders were leaders of the Montreal fur trade and its shareholders, in surprising numbers, listed their address as the Hudson's Bay Company, as late as 1870.

The early '20's was a time of pronounced change in the economic structure of the Canadas. It was also a time when the commercial-financial complex of Montreal was unchallenged in British

⁶Calculated from the Report of the Superintendent of Insurance of the Dominion of Canada--1881 (Ottawa: Queen's Printer, 1882).

⁷D. G. Creighton, The Commercial Empire of the St. Lawrence (Toronto: The Ryerson Press, 1937), p. 205.

North America, and thus an excellent starting point for delving into the process by which the financial structure of Canada redistributed itself by 1870.

Much of this section will be dealing with subjects that, at least in the contemporary world, were not considered financial. But, even to-day, there are many aspects of finance which are tightly inter-woven with other sectors of the economy. In this earlier period, the interconnections were even tighter.

1. The Economic-Historical Background

The wealth which once entered Montreal in the fur packs was replaced in the first two decades of the nineteenth century by a new income connected with the production of squared timber and deals, wheat, and potash. Much of the peninsular country between Lakes Ontario, Erie, and Huron became a stopping place in the face of economic growth and transportation in the westward push of wheat production. The production of squared timber for the British market and the parade of American lumbermen across Canada created, along with a stump filled desolation, an important source of income for Canadian commerce.⁸ The new economy initially fitted into the

⁸Up to Confederation in 1867, the term Canada referred to that portion of British North America south of the Hudson's Bay Company's lands and west of the Maritime colonies of Newfoundland, Nova Scotia, Prince Edward Island, and New Brunswick. Prior to the last few decades of the century, there was limited interconnection between the maritime colonies and Canada. For this reason, and because a description of the financial evolution of the maritime colonies would add little to an understanding of the spatial processes taking place, the maritime colonies are not considered in this section. When the financial relationships of central Canada become more widespread in the latter part of the century, it becomes justified to take Canada in its post-confederation dimensions.

Prior to 1841, Canada consisted of two colonies--Upper and

commercial structure which had preceded it. "The Eastern Townships formed a kind of extension of Vermont with which Montreal had already been doing business. In Upper Canada, the settlers established themselves along the river and lakes; and Kingston, Niagara, and Detroit which became the centers of settlement, had been originally supply stations, and stations of trans-shipment in the fur trade."⁹

Montreal, in the first two decades of the century, performed a dual commercial role, serving both a declining fur trade, which had swept to the far North-West, and the exploitation of new exports destined to fill the war-time needs of the empire. By 1816, Montreal's "merchant princes" had diversified. There was still McGillivray, Thain and Company which possessed the controlling interest in the North West Company. But other firms were wholesaling commodities destined for a more settled clientele. Forsyth, Richardson and Company were agents for the East India Company. Horatio Gates, an immigrant from Vermont, conducted the largest business in domestic and foreign agricultural products of any firm in Canada.¹⁰ Gerard, Gillespir, Moffatt and Company performed as agents of the Phoenix Fire Insurance Company of London. James McDougall and Company, merchants and brokers, Toussaint Peltier, a grain merchant, Zabdiel

Lower Canada. In that year, the two colonies were united to form the province of Canada, the two original parts being differentiated by the terms Canada East and Canada West.

⁹Creighton, op. cit., p. 118.

¹⁰Adam Shortt, "Founders of Canadian Banking--Horatio Gates, Wholesaler, Banker, Legislator," Journal of the Canadian Bankers Association, Vol. 30 (1922), pp. 34-38 (hereafter this journal will be referred to as J.C.B.A.)

Thayer, a dealer in crockery, George Platt and Company, J. and J.M. Frothingham, J. T. Barrett, Jacob De Witt, hardware merchants--all would qualify as merchant princes of the city by 1816.¹¹

The new commerce necessitated an expansion of the infrastructure of the Canadas. The main driving force behind the colonies in terms of markets, capital, and manpower was Britain. Britain was in the last stages of transforming herself into the "workshop of the world," and as a consequence, required increasingly large imports of food and raw material. Canada, until the 1840's, had a preferred status in this greatest of all import markets. To exploit the market, agricultural settlement and the concomitant immigration were emphasized. Equally important, the natural transportation system of the voyageur had to be supplemented by a costly man-made system capable of carrying high-weight, low-value goods. Capital had to be acquired and new business methods adopted.

Montreal had to re-enter the commercial rivalry of the eastern seaboard cities in an attempt to capture the commerce of the expanding agricultural frontier. It built canals on the Rideau and St. Lawrence, but they lost to New York's Erie and Oswego canals; the Grand Trunk Railway was constructed but was overshadowed by those leading to Boston and New York. The defeats, of course, did not mean a return to what went before, for even though Montreal and the Canadas were still a pale shadow of New York and the United States by the 1870's, the entry into the race exercised an influence on all facets

¹¹Rev. J. Douglas Borthwick, History and Biographical Gazetteer of Montreal to the year 1892 (Montreal: John Lovell, 1892), p. 55.

of Canadian economic growth, including that of the financial communities.

There were two great periods of canal construction. The first lasted from the early 1820's to 1837. The Lachine Canal on the south shore of Montreal Island was the first, completed in 1824 at a total cost of £109,601. It was a very small endeavor, especially in comparison to the Erie, then nearing completion. The Welland was pushed through to the Niagara River in 1829 and directly to Lake Erie in 1833. The Rideau, completed in 1834 at a cost of between £800,000 and £1,000,000 to the British taxpayers, proved a poor commercial substitute for a St. Lawrence system and may even have hindered Montreal's counter attack on New York's inroads into the American and Canadian West. The second period from 1841 to 1848 saw the completion of the Cornwall Canal at the Long Sault rapids at a cost of one and one-half million dollars. With the result of a three million dollar increase in its debt, the united Canada acquired a first class St. Lawrence system with a controlled depth of nine feet. However, the American route flourished even after the latter's full completion in 1848. The freight rate upbound between New York and Buffalo on the Erie was \$7.80 per ton in 1847; between Montreal and Port Maitland (40 miles west of Buffalo on the Canadian shore), it was \$3.00 per ton.¹² But, because of Montreal's cul-de-sac position, winter ice, high insurance charges, limited choice of bottoms, and misconceptions resulting from Mercator's popular projection, New York remained the

¹²"Report of Commissioners of Public Works, 1848," Sessional Papers, 1849, App. B.B.

more economical and more frequently used harbor. A select committee of the Legislative Assembly reported in 1858 that "the proportion of the lake trade diverted to New York is as six and one-half million tons to about half a million forwarded to Quebec."¹³ Prior to the mid-forties, the American tariff and the colonial preference of Great Britain had lessened the competitive impact of New York. But, during the three years from 1845 to 1847, practically the whole barrier was removed. Britain repealed the Corn Laws and reduced the preferences on British North American timber; the American congress passed drawback acts, bonding legislation which allowed Canadian exporters and importers to ship via United States ports. New York, not surprisingly in retrospect, overwhelmed Montreal as a trade center. Montreal failed to fulfill its ambition as the major export center for the northern part of the American trans-Appalachian West, and it also lost a portion of the western Canadian market.

There is a danger of overemphasizing the failure of Montreal's commercial aspirations. The merchants and millers of Canada were badly hurt by the loss of British preferences, especially since they were in an overcapitalized position as a result of the speculative expansion between 1843 and 1846. The Montreal wholesalers and grain dealers were also badly hurt. But, while the crisis which climaxed in 1849 was a desperate one (Creighton describes it as the final collapse of Montreal's commercial system), Montreal still succeeded in maintaining a sizeable share of the commerce of Canada, even though

¹³ Journals of the Legislative Assembly, XVI, 1858, App. 2 contained in H. A. Innes and A.R.M. Lower, Select Documents in Canadian Economic History--1783-1885 (Toronto: The University of Toronto Press, 1933).

it was unable to encroach on the position of New York in the trade of the American Middle West. Even in 1849, that troubled year for Montreal, in which some Tory merchants sued for annexation to the United States in a fit of despondency over the city's plight, the imports through the city were almost four times those through Toronto. As can be seen from Table 4-1, the imports of the province were dispersed among several ports of entry, with only Montreal still clearly a first-order center. It is true that a great deal of the imports and exports of Canada flowed through the United States rather than along the St. Lawrence. During the period of the reciprocity treaty with the United States, total imports either directly from the United States or transshipped through that country, usually totaled about one-half of the total Canadian imports¹⁴ (see Table 4-2). The U.S. component, however, entered through several ports, while the foreign trade which came directly into Canada flowed through the funnel of the St. Lawrence. It is probable that Montreal's commercial and financial houses retained control of some of the transshipped commodities through the United States in a manner similar to the way New York retained control of some of the cotton trade shipped out of New Orleans.

Eighteen-fifty ushered in a roaring boom, in which approximately 100 million dollars in capital was imported into Canada.¹⁵

¹⁴During this period, the United States component of Canadian imports was somewhat higher than might be expected with the existence of tariff barriers. See Donald C. Masters, The Reciprocity Treaty of 1854 (Toronto: McClelland and Stewart, 1963).

¹⁵H. A. Innis and A. R. M. Lower, op. cit., p. 655.

TABLE 4-1 Return of the Value of Goods Imported into the Several Ports of Entry of Canada, 1849*

Port and location	Value of imports in pounds	Port and location	Value of imports in pounds
ST. LAWRENCE		LAKE ONTARIO (cont)	
Montreal	1,236,533	Port Hope	10,839
Quebec & Outbays	394,025	Oakville	7,768
Brockville	40,125	Port Dalhousie	6,684
Prescott	11,879	Queenston	6,173
		Whitby	5,755
RICHELEAU & EASTERN TOWNSHIPS		LAKE ERIE & LAKE ST. CLAIR	
St. Johns	303,409	Port Stanley	39,055
Stanstead	16,456	Chippewa	29,906
Phillipsburg	12,032	Port Dover	14,308
		Fort Erie	11,801
		Niagara	9,933
LAKE ONTARIO		Sandwich	7,095
Toronto	326,863	Dunnville	5,580
Hamilton	280,756	Port Sarnia	5,437
Kingston	96,011		
Beleville	21,296		
Coburg	17,105		

* Adapted from Government Returns, raw data also presented in W. H. Smith, Canada: Past, Present and Future (Toronto: T. Maclear, 1851), Vol. 1, pp. cxx-cxxi).

Ports reporting less than £5,000 in imports are omitted.

TABLE 4-2 The Relationship to Total Canadian Imports of Those Imports Originating in and Passing Through the United States During the Period of the Canada-United States Reciprocity Treaty

Date	Passing through the United States in bond	Purchased in the United States and produce of the U.S.	Purchased in the United States but not produce of the U.S.	Total Imports into Canada
1856	4,926,920	18,171,620	5,119,116	43,584,384
1857	5,582,640	16,434,332	3,790,316	39,430,600
1858	2,057,024	11,444,742	3,847,162	29,078,524
1861	5,688,950	16,141,426	4,927,958	43,054,836
1862	5,508,422	21,128,078	4,045,080	48,600,633
1863	6,172,483	20,287,762	1,821,598	45,964,493
1865	6,511,771	16,485,625	3,103,430	44,620,469
1866	12,751,548	14,616,167	2,284,715	53,802,319

Source: Donald C. Masters, The Reciprocity Treaty of 1854 (Toronto: McClelland and Stewart, 1963), p. 124.

Montreal sought new commercial relationships and attempted to strengthen the old ones. The reciprocity agreement among the B.N.A. provinces in 1849, and with the U.S. in 1854, appeared to benefit the province of Canada's economy. To the surprise of many, Canadian wheat was still able to compete in the free British market. Montreal garnered a share of this increased trade, its imports expanding rapidly from £1.7 million in 1847 to £4.1 million in 1854. The home market, buoyed by these events, provided prosperity for the commercial establishment. "The divisive effects of dependence upon American markets and transport routes, implied by the expansion of the export trade to the south, were to be offset by the strengthening of the east-west transportation axis, with railways supplementing the older system of natural and artificial waterways."¹⁶

The railway era of pre-confederation Canada encompassed the decade of the 1850's. Prior to 1850, only 66 miles had been laid in Canada, compared to 9,000 in the United States. In 1860 there were 2,065 miles, including the Grand Trunk, the Great Western, the Northern, and a few lesser trunk lines.

During the '60's, only 213 miles were added to the rail net, a figure which reflects the equivocal nature of economic growth during the decade. The economy seemed to have reached a bench after the frantic growth of the previous decade and it was not to leave it until the close of the century.

Between 1821 and 1871, the Canadian economy evolved from an

¹⁶W. T. Easterbrook and Hugh G. J. Aitken, Canadian Economic History (Toronto: Macmillan, 1963), p. 367.

TABLE 4-3 Value Added, by Industry, in B.N.A., for Selected Years, 1851-1900

	1851		1860		1870		1880		1890		1900	
	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.
1. Millions of dollars--current dollars	2. Per cent of G.N.P.											
Primary industries:	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.
Agriculture	54	(32)	122	(38)	153	(33)	186	(32)	217	(27)	282	(27)
Fishing and trapping	1	(1)	3	(1)	5	(2)	11	(2)	13	(2)	17	(2)
Mining	1	(1)	2	(1)	4	(1)	6	(1)	11	(1)	35	(3)
Forest operations	23	(14)	33	(10)	44	(10)	50	(9)	53	(7)	52	(5)
Secondary industries:												
Manufacturing	31	(18)	48	(15)	87	(19)	110	(19)	189	(24)	223	(21)
Construction	7	(4)	13	(4)	14	(3)	22	(4)	37	(5)	41	(4)
Service or tertiary industries:	32	(19)	63	(20)	96	(21)	130	(22)	214	(27)	311	(29)
Total, all industries	149	(88)	284	(89)	403	(88)	515	(89)	734	(91)	961	(91)
Adjustment*	20	(12)	35	(11)	56	(12)	66	(11)	69	(9)	96	(9)
Gross national product	169	(100)	319	(100)	459	(100)	581	(100)	803	(100)	1057	(100)

*Comprises rent, indirect taxes less subsidies, plus net investment income.

Adapted from: O. J. Firestone, "Development of Canada's Economy, 1850-1900," Trends in the American Economy in the Nineteenth Century (A Report of the National Bureau of Economic Research, Princeton: Princeton University Press, 1960), p. 225.

elemental state, almost exclusively dependent upon the primitive extraction of export staples to a more rounded, integrated condition. "Signs of change were visible in 1830, unmistakable in 1840. By 1850 change had gone too far to be turned back and 1860 and 1870 can denote only the filling out of the home-market exchange economy already implicit. Purely extractive industry was overlaid with a secondary development involving an elaborate transportation system, a capitalistic agriculture, an extensive list of manufacturers that appear to have been efficient in their day, and a creditable financial structure. Probably the most telling evidence of the transformation was the fact that this colony, so recently at the mercy of the fluctuations of imperial markets for one or two commodities, could undertake successfully to swallow an empire of its own in the years after 1867."¹⁷

2. The Supply of and Demand for Investment and Loan Funds in Canada

The function of most financial institutions is to facilitate the movement of funds from those less able to use them to those who are better able to use them. It is obvious that the locating of these two groups would play an important role influencing the site of the institutions themselves. The locale of the supply and demand for capital provides the bounds within which an analysis of the locational characteristics of the financial intermediaries can take

¹⁷H. C. Pentland, "The Role of Capital in Canadian Economic Development Before 1875," Canadian Journal of Economics and Political Science, Vol. 16, no. 4 (Nov. 1950), p. 457 (hereafter, this journal will be referred to as the C.J.E.P.S.).

place. The following summary of the supply and demand conditions affecting Canada constitute a prelude to an assessment of the distribution of financial intermediaries serving Canada between the benchmark dates.

W. A. Mackintosh has commented that, given a population with "knowledge of, and willingness to apply, the industrial arts of mature countries...a country or region is economically at a pioneer stage when its population in relation to resources is obviously below the optimum made possible by the nature techniques available to it."¹⁸ Such an economy is typified by a shortage of labor, fixed capital, and money. The rate of increase in capital is high, as are the interest rates, and two circulations often exist side by side, a cash circulation near the trading centers and a barter circulation increasing towards the remote frontier.¹⁹ With the possible exception of the defeated remnants of New France, languishing in commercial solitude, Canada for the most part, possessed the requisite characteristics of a pioneer economy.

There were two areas of demand for financial services within Canadian agriculture. The first was for "carry-over" credit, both of short and long term, to provide for the lean periods between crops, periods which could range for more than one year. The second need was for long-term investment capital in land, machinery, and housing.

¹⁸W. A. Mackintosh, "Some Aspects of a Pioneer Economy," C.J.E.P.S., Vol. 2, no. 4 (Nov. 1936), p. 458.

¹⁹For a description of the geographic distribution of cash circulation in the early 1830's in Canada, see George Hebert, Present State of the Canadas (London: George Hebert, 1833), p. 152.

Before the advent of mammoth capital works programs in the 1840's and '50's, the agriculture of Canada was largely limited to commercial credit supplied by merchants following their then customary policy of huge profits and almost unlimited credit. The merchants, who were almost the only group with access to liquid capital, were reluctant to commit money to longer term investments. A considerable sum of money was invested in land, land improvements, and capital equipment. Prior to 1850, it cost from £200 to £900 to establish a farm in Canada.²⁰ It was estimated that between 1827 and 1837, £1,800,000, and between 1837 and 1847, £2,670,000 was invested in cleared land.²¹ But, these sums were rarely supplied by financial intermediaries. The investment was large but the form it took was that of direct labor and self-sufficiency translated into improved farm land. When marketable surpluses occurred, the proceeds were put back into the farm. This improvement of farm land was one cause of the capital shortage which plagued Canada from after the War of 1812 until mid-century. By the middle of the century, the need for broader sources of investment capital was being felt. The rise in land values, the need for such capital works as drainage, the desire to replace temporary housing, and the diffusion of American agricultural technology demanded investment capital. Individual investors were scarce and their resources fell far short of demand. Rates as

²⁰H. Cowan, British Emigration to British North America (Toronto: University of Toronto Press, 1928), p. 141.

²¹Elgin-Grey Papers, Vol. 4, p. 1429.

high as 24 per cent per annum, and averaging at least 12 per cent, were the rule.²²

In the period between 1821 and 1871, the demand by agriculture for financial services was not evenly distributed within Canada. The growth of agriculture was most pronounced in Upper Canada and the freehold areas of the Eastern Townships of Lower Canada. The changing population distribution (presented in Figures 5-1 and 5-2) is primarily a reflection of the differing rates of expansion of the agricultural industry. The agriculture of French Canada by the 1830's had ceased to produce surpluses, and had become non-receptive to innovations. Until 1854, the outdated seigneuries continued to exist. Foreign trade played a small part in the area's commerce and the commercial houses of Montreal concentrated on the expanding areas of the West, and on the Eastern Townships.

For the most part, the timber-and-lumber trade was capital poor and made up of small units. For timber middlemen of Quebec and interests such as those of Calvin, Wright, Bronson and Eddy, capital played a larger role. Capital saving devices were characteristic of most of the industry throughout the period. Wages were long deferred, employees without families were hired, and they often received truck pay. It was a business of great risk to the individual entrepreneur, and few survived for extended periods. While these entrepreneurs could make do with very little long-range investment

²²The Story of the Canada Permanent Mortgage Corporation, 1855-1925 (Toronto, 1925), p. 9.

capital, they were quite dependent upon commercial credit.²³

During the period, mining never played the role for which it was later destined. With the exception of a few relatively minor events such as the copper exploration on the stark Canadian shore of Lake Superior after 1846, the bringing in of the "Silver Islet" on the same shore in 1868, and a few small projects in eastern Ontario, capital input was negligible. Manufacturer's demands on capital were not great prior to 1871. As in the United States, most of the early manufacturing was closely tied to commerce. The milling industry was the most notable, this activity being one of the few manufacturing activities which could entice the merchants to invest their money. With the exception of saw milling, grist milling was the most common manufacturing activity.²⁴ There were some other manufacturing enterprises: a few iron works, producers of agricultural machinery; the

²³The use of credit is suggested in the following passage. "The first step necessary for a lumberman is to secure his limits, which is done by an application for a license to cut timber on Crown lands at a certain stumpage. The next is a more common but less easy one in other matters, viz: 'raising the wind'. If you have a little property, you will find a class of gentlemen known among lumbermen as the big bourgeois (which is the synonym of boss) who will advance you at least to the value of your property what are called supplies, in order that you may indulge in your propensities for speculation. Your supplier gives you provisions and clothing for your men, axes, ropes, augers, anchors and cables and a little cash, for which he charges a sort of premium of insurance over ordinary profits. At the same time you are encouraged to run into debt as much elsewhere as you can, provided always that no other person receives a prior mortgage on your timber. When your timber reaches Quebec (if you survive that stage) it is consigned to your supplier who sells it for you....Your supplier then strikes the balance, which he either hands to you or demands from you according to the price of timber and your own management." Thomas C. Keefer, The Ottawa (Montreal, 1854), p. 54.

²⁴As early as 1825, there were 232 grist mills in Upper Canada. Legislative Assembly Journals, 1849, Vol. 8, App. I.

textile industry of the Eastern Townships and the Niagara Peninsula; and breweries (which also attracted the interest of the merchants). In general, the effective demand (as opposed to their needs) for capital was slight. The demand of transportation for capital was insatiable, and to a considerable degree, it became effective in tapping the various sources of capital. Roughly 30 million dollars was expended on canals during the period and it has been estimated that \$146,000,000 was poured into Canadian railroads by Confederation in 1867.²⁵

Commerce demanded a great deal of credit to maintain its operations. Commercial credit was the primary source of short-term capital (and for much of the time capital of any sort) for agriculture, lumbering, and manufacturing during the first half century. It is impossible to give an accurate quantitative value to the amount of commercial credit outstanding throughout the period because bank figures at this time did not represent the entirety of the commercial credit in the economy. It is fairly evident, however, that the supply through the merchants' credit chain was insufficient. This is indicated by the fact that the merchants found it necessary to pool their resources and form banks. Initially, banks were creations of the commercial system and in North America they "always arose from a shortage, not from a surplus, of funds."²⁶

The supply of capital in Canada between 1821 and 1871 came mainly from three sources, Britain, the United States, and domestic

²⁵Easterbrook and Aitken, *op. cit.*, p. 316.

²⁶Pentland, *op. cit.*, p. 472.

savings. The British and the domestic sources were by far the most significant and of these two the imperial source was paramount, for a considerable portion of the domestic saving was a consequence of the sometimes massive infusion of British funds. In Britain, investors and particularly "country investors" were actively seeking to put to productive use the sizeable amount of funds at their disposal. This large quantity of funds was a major reason for the relatively low rates of interest on Lombard Street throughout most of the nineteenth century.²⁷ The "country investors", on the whole, were people who had benefitted from the industrial processes taking place in Britain. Not all these persons had been engaged in manufacturing and trade. Many, especially those of large fortunes, had been the proprietors of land upon which factory towns sprang up or mining operations were carried out. Many of those who earned their increment also adopted the life of the country families. "High as their standards of consumption were, these magnates could not find use for the inflated rent rolls with which the industrial revolution had dowered them."²⁸ In Lancashire, Ireland, the Midlands and the Eastern

²⁷For example, between 1828 and 1832, excellent commercial paper could be discounted in London for as little as 1½ per cent.

²⁸Leland Hamilton Jenks, The Migration of British Capital to 1875 (New York: Alfred A. Knopf, 1927), p. 72. Jenks cites the case of the Earl of Darby, whose Lancashire estates were worth £14,000 a year before the rise of manufacturing centers raised them to £180,000 (p. 360).

The size of the surplus capital in the United Kingdom is suggested by the findings of M. M. Postan, that each of several personal fortunes could have financed the entire industrial revolution (M. M. Postan, in an unpublished series of lectures given to the graduate Economic History Seminar at Johns Hopkins University, 1954-55. Quoted in Lance E. Davis, "The Investment Market, 1870-1914: The Evolution of a National Market," Journal of Economic History, Vol. 25 (Sept. 1965), p. 355.

Counties, money accumulated in such quantities that it could not profitably be invested locally. From there, balances flowed constantly to London, some to be returned as discounts on commercial paper, and some to be sent overseas. In 1874 the advent of the mail-coach made it convenient to carry the reserves of the country banks and investors to London for more remote investment.

Britain was by far the prime source of investment capital for the world for most of the nineteenth century. In 1838, \$174,000,000 was invested in the United States alone.²⁹ Table 4-4 shows that the nominal value of those securities listed on the London Stock Exchange in 1843 alone totalled more than 1,118 million pounds. Between 1815 and 1875, British investors exported a capital surplus amounting to about half a billion pounds. Through regular reinvestment of the accruing interest abroad the nominal value of Britain's foreign wealth amounted to £1,200,000,000 in 1875.³⁰

England had surplus capital in quantity. But what part of it was available to Canada? Despite the assertion that capital follows the flag, nearly every part of the world was the object of attention of the British investor before the overseas empire. It is true that great fortunes had been made in the domain of the East and West India

²⁹Jenks, op. cit., p. 85. This is an estimate. There is considerable uncertainty over the total British overseas investment and the proportion that went to particular areas. In 1838 Garland estimated British investments in American Stocks of all kinds at \$110,000,000 (Niles Register, Vol. LIV, p. 322, cited in Jenks, op. cit., p. 363). In 1843 a committee of the House of Representatives estimated \$150 million as the total of British investments in U.S. securities (H.R. 296, 27 Cong., 3 session, cited in Jenks, op. cit., p. 363).

³⁰Ibid., p. 335.

TABLE 4-4 Nominal Value of Securities Quoted on the London Stock Exchange, 1843

Number and type of security	Nominal value of Securities in pounds
70 Railway companies	57,447,903
Banking interests	46,449,694
59 Canal companies	17,862,445
8 Dock companies	12,177,237
Turnpike trusts	8,774,927
East India Company	6,000,000
South Sea Company	3,662,734
24 Foreign mining companies	6,464,833
81 British mining companies	4,500,000
107 Assurance companies	26,000,000
27 Gas, light, and coke companies	4,326,870
11 Water companies	2,536,122
5 Bridge companies	2,123,874
4 Literary institutions	1,003,125
196 Shipping, land, asphalt, loan etc. companies	25,000,000
TOTAL 612 companies	224,229,754
British and Irish funded debt	773,000,000
Loans to foreign governments and American states	121,501,410
TOTAL	1,118,731,164

Source: Spachman, W. F., Statistical Tables of the United Kingdom and its Dependencies (London, 1843), in Jenks, op. cit., p. 373.

Companies. The business aristocracy of pre-railroad London consisted of the great "East and West India families." But, their income was a painless one without commensurate investment, at least on the part of many of the chief beneficiaries.³¹ The extensive development of British North America (and the other colonies) through the export of saved capital, was not seriously undertaken before 1850. "Commercial men who stirred with excitement over impediments to trade in the alien Caribbean and the China Seas were frankly bored by Britain's possessions in Australasia and the Canadas."³² Wakefield's call to employ British capital and labor under the flag was insufficient to overcome the dismal view of colonies propounded by Smith in the Wealth of Nations³³ and later by Ricardo, James Mill, and J. R. McCulloch.³⁴ The sterling debt of Upper Canada, by the 1840's, was £870,000 (\$4,350,000) and Lower Canada had no sterling debt at all. Taking Upper Canada's population as 430,000, the per capita debt was about \$10. The average per capita debt of the American states, on the other hand, was \$16 and Florida's per capita debt had reached \$200.³⁵ The obligations were owned almost exclusively by British investors. Until the middle of the century, Canadian securities

³¹Ibid., p. 193.

³²Ibid., p. 194.

³³Smith in the long chapter on colonies in his Wealth of Nations exploded the myth that the profits accruing from the monopoly of colonial trade compensated the parent state for the outlays it incurred in protecting the colonies and this monopoly.

³⁴Alfred LeRoy Burt, The Evolution of the British Empire and Commonwealth (Boston: Heath and Co., 1956), p. 210.

³⁵R. C. McGrane, Foreign Bondholders and American State Debts (New York, 1935), pp. 35 and 39.

were scarce, and largely an unknown quantity and, when offered, less preferred than American securities. This lack of loans apparently is a reflection of a limited appreciation on the part of the Canadian colonies of the benefits of using borrowed money to suit themselves and the unreceptiveness of the London market.³⁶ Average market rates on the London market in the '30's ranged between 2.73 and 3.69 per cent. At the same time, Canada had great difficulty floating loans at 5 per cent in London, especially when money in Boston and New York could garner 5½ to 7 per cent.³⁷ Canada obviously could have used a great deal of capital, especially in the 1830's. But this did not mean it was reflected in market demand. In the United States, the demand was more effective; it was transmitted to the sources of capital and particularly to London. Canada undertook a poor job of salesmanship. "Given the right terms, the right approach, and the right personal contacts, capital could be had practically for the asking, as American promoters knew full well." Aitken adds, "where is the Canadian counterpart before 1840 of that colourful figure, the politician-promoter, the key figure in the expansion of the

³⁶Baring Brothers stated quite flatly in 1839 that the stocks of the United States were preferred to Canadian debentures. This reflected an attitude which lasted, to some extent, until the latter part of the century. Public Archives of Canada, U.C. Sundries, Nov. 16, 1839, Dunn to Harrison, enclosure. Cited in H. C. Pentland, "Further Observations on Canadian Development," C.J.E.P.S., Vol. 19, no. 3 (Aug. 1953), p. 406.

³⁷Ralph W. Hidy, The House of Baring in American Trade and Finance (Cambridge: Harvard University Press, 1949), p. 92. Every debenture authorization act of the Upper Canada Legislature included a clause which limited the rate of interest to 5 per cent (payable in England) and required that the debentures not be sold at less than par. This made the Canadian bonds unattractive, even at the height of a boom. The Americans, while sometimes saddled by such regulation, easily circumvented them.

American frontier? Examples can be counted on the fingers of one hand."³⁸

Between 1827 and 1837, the British taxpayer supplied £800,000 for the Rideau Canal and the early St. Lawrence canals left Upper Canada with a sterling debt of £870,000. The Canada Company also injected sizeable sums into the country. But, relative to the United States, the input of British capital was small, both in absolute and per capita terms and the impact on financial intermediaries of such investments as the Rideau Canal and the Canada Company investments was also limited. Between 1841 and 1849, Pentland estimates that something over £3,000,000 was invested by the London market in Canadian securities, the vast majority of which were governmental.³⁹ However, during the first railway period 1850-59, larger infusions of capital commenced. The British railway building complex was beginning to find that the profits from railway building in Western Europe were being restricted by French, Belgian, and German competition. The Empire took on a brighter hue, and proposals for cotton railroads in India, or interceptor lines in Canada, or railways and docks at the antipodes, were received by Peto, Brassey, and other railway financiers and contractors with greater interest. Largely as a result, between 1850 and 1859 capital imports into Canada, almost all from Great Britain and most destined for railroads, amounted to 100 million dollars (60 million of it private). After a

³⁸Hugh G. J. Aitken, "A Note on the Capital Resources of Upper Canada," C.J.E.P.S., Vol. 18, no. 4 (Nov. 1952), p. 532.

³⁹H. C. Pentland, "The Role of Capital in Canadian Economic Development," op. cit., p. 464.

lull in the quantity of capital imports in the 1860's they revived in the period between Confederation and 1875.

TABLE 4-5 Capital Imports into Canada 1827-1875

1827-1837	\$ 25 million	1860-1867	\$ 46 million
1841-1849	35 million	1868-1875	200 million
1850-1859	100 million		

Estimates from H. C. Pentland, "Further Observations on Canadian Development," C.J.E.P.S., Vol. 19, no. 3 (Aug. 1953), p. 406. These estimates include movement of capital into Canada which would not directly affect financial intermediaries, such as the sterling spent in Canada on British military account, or the expenditure of British money on the Rideau Canal. It includes capital imports from all countries, but capital imports from countries other than Britain are slight.

Between 1821 and 1871 the hesitant beginnings of a United States supply could be observed. American investment, while quantitatively small in relation to that of the British, supplied a somewhat broader variety of needs in Canada. The British supply was largely invested in governmental securities, large transportation projects, commercial credits, and the squared timber trade. Americans invested in mining, lumber, and the budding manufacturing industry in Canada. As well, American capital entered commerce and banking to a limited extent. While small in comparison to that of the British, investment in transportation projects did occur.

In the late '30's, speculators from Maine and New York entered the Canadian lumber industry. By the 1850's, many of the Canadian lumber mills were owned by Americans. Bronson, Calvin, Eddy, and Rathbun, well-known names in Canadian lumbering, were all American. A proportion of the endowment funds of Cornell University are said

to have come from the activities, around 1850, of the Ithica firm of Sage and Grant in the forests of the Lake Simcoe area.⁴⁰ The period of the Reciprocity Treaty has been described as "the height of the American raid from New York across Canada to Michigan."⁴¹

It was American money which financed the Colonial Gold Mining Co. on the Rivière du Loup. Nearly all the silver properties on the north shore of Lake Superior, including the prodigious Silver Islet Mine, were American owned. American money was invested in the Madoc deposit in eastern Ontario, and by 1880 all the leases were held by Americans. Mica was mined by the New York Mica Company in 1869. Even before 1871, Americans supplied a considerable amount of the capital for Canadian mining. However, the most important developments in the field did not commence until the 1880's and the total capital invested by Americans in Canadian mining before this date did not rank very large.

Prior to 1871, the importation of American capital for Canadian manufacturing was very small. Many Americans migrated to Canada and established various manufacturing enterprises to put to use experience gained in the United States, but as a rule they brought little American capital with them.⁴² Some American capital found its way into Canadian transportation projects. The Welland Canal Company

⁴⁰A. R. M. Lower, The North American Assault on the Canadian Forest (Toronto: The Ryerson Press, 1938), pp. 118-119.

⁴¹William Little, Letter to the President and Council of the Montreal Board of Trade (Montreal, 1890). Cited in Lower, op. cit., p. 138.

⁴²For a description of the background and operations of some of these firms, see Innis and Lower, op. cit., pp. 595 and 602; A. St. L. Trigge, History of the Canadian Bank of Commerce (Toronto, 1934), Vol. 3, 66-67; Marshal, op. cit., p. 11.

was distinguished from other major Canadian canals in being able to market a considerable block of shares (70,000) in the United States.⁴³ Various early Canadian railways also sought American capital. The promoters of the Simcoe and Ontario Railway looked to New York and Oswego for support as early as 1835. Buffalo capitalists along with some from Brantford and other Ontario centers invested in the Buffalo, Brantford, and Goderich Railway. The Midland Railway was purchased in 1871 by a company with considerable American capital. Erastus Corning led a group of American financiers in subscribing one million dollars in the shares of the Great Western. Investments such as that of Corning and his Utica and Schenectady Railroad in the Great Western were meant as promoting extensions of connecting links in American systems. To the financial return from the line itself was added the additional motive of increased returns on already owned American lines or increased trade in American commercial centers. American investment in Canadian telegraph, prior to 1871, was not large, although there were many operating agreements between companies in the two countries.⁴⁴ In banking only a minute role was played by American capital, the short-lived Bank of Canada of 1818, the Niagara Suspension Bridge Bank of 1836, and a few banks such as the Bank of Western Canada incorporated under the Free Banking Act of 1850 being the only examples of extensive American interest. Only a very small number of shareholders in the larger

⁴³Hugh G. J. Aitken, "The Family Compact and the Welland Canal Company," C.J.E.P.S., Vol. 18, no. 1 (Feb. 1952), pp. 67-68. The Grand River Navigation Company also attracted some American investment.

⁴⁴Charles Prentice Dwight, "History of Canadian Telegraphy," in J. Castell Hopkins, ed., Canada: An Encyclopedia of the Country, Vol. 6 (Toronto: The Linscott Publishing Co., 1898), pp. 530-534.

chartered banks listed their residence in the Republic.

Despite American involvement in these miscellaneous projects, the total American investment was relatively small. Pentland estimates the total American capital imports, prior to 1875, as under 5 per cent of all capital imports.⁴⁵

3. The Servicing by Financial Intermediaries of British and American Investments in Canada, 1821-1871

The country investors and their banks were a spring from which a great deal of the world's investment capital emanated through the first three-quarters of the nineteenth century. London represented the major nexus through which the capital streamed, and it also contributed a sizeable addition to the flow in its own right. A considerable portion of this pent-up capital flowed to North America. Initially, the vast majority of it went to the United States, but particularly in the 1850's and the late 1860's and early 1870's, Canada received its share. The capital emptied into the coffers of promoters, governmental and private, and whatever enterprise they represented (if any). There were differing characteristics in the movement which involved varying needs for the mechanism of financial intermediaries, different levels of skill and knowledge on the part of the middlemen, and ultimately different locations for them. The distribution of these functions between cities on the European and American sides of the Atlantic provides an important element in the explanation of the 1871 distribution of intermediaries in Canada.

⁴⁵Pentland, "Further Observations on Canadian Development," op. cit., pp. 404-405.

By itself, it provides an illuminating picture of the functioning of the financial mechanism and its locational results.

a. The Geographical Barrier of the North Atlantic

The mobilization of funds from Britain to North America involved not only a movement of capital from old to new industries, and less productive ones to more productive ones, but also a long geographical shift. The money was entrusted by its owners to borrowers separated by the notorious North Atlantic. This expanse was a prime cause of an uncertainty discount. The European creditors, when acting in an economically rational manner, had an interest in limiting the risk involved in these long-range investments. A creditor or intermediary had a distinct advantage if he could speedily acquire quantities of reliable information. The Atlantic was a formidable barrier to information flow and was a passive but important factor in determining the structure of the financial information system and the allocation of decision-making on either side of the Atlantic.

Before the advent of the submarine cable in 1866 and regular steamship service, communications were slow and erratic. In the early nineteenth century, Lord Dalhousie bitterly complained about the official (and least efficient) postal delivery, noting that his dispatches which left England in November did not reach Quebec until February and his February dispatches lingered until May.⁴⁶ The more efficient private system of depositing mail with friendly captains of

⁴⁶Adam Shortt and Arthur G. Doughty, ed., Canada and its Provinces, Vol. 4 (Toronto: Glasgow Brook and Company, 1914), p. 737.

private vessels was somewhat faster but also uncertain for regular communications. In 1818 a line of fast American vessels was placed on the route between Liverpool and New York, from which letters were delivered to Canadian border towns and eventually their destination. It was conceded in 1836 that a voyage from England to New York was around a week shorter than that to Montreal.⁴⁷ But, even in 1839, the transatlantic crossing was rather uncertain, as is recounted in a description which Innis and Lower label "An average passage." A traveller recounts a trip from London to Quebec. "I started off May 21, 1839, in a merchant vessel from London docks. I paid £4 10s for my passage and found myself in provisions for six weeks--as the captain told us....The voyage occupied eleven weeks and four days....", the voyage being hindered by fog and dead calms, and made uncomfortable by hunger and thirst.⁴⁸ By 1852, a regular line of screw steamers, subsidized by postal authorities, was initiated by the Canadian Steam Navigation Company between Liverpool and Quebec, with departure only twice a month in summer and once a month in winter. The speed of service was still rather irregular. The sailing time in 1853 averaged 14 days to Montreal and 12 days for the return voyage for the fastest boat of the line, and 20 days out and 15 home and 22 out and 18 home for the other two boats of the

⁴⁷ Montreal Gazette, Feb. 2, 1836; quoted in Innis and Lower, op. cit., p. 179. The St. Lawrence was difficult to navigate, especially for sailing ships. Ice retarded movement on the river in winter and, even in its absence, the river's confines restricted the windward advance of sailing ships, and shoals necessitated the skills of expert pilots. But, starting in the 1820's dredging and rock clearance below Montreal began to improve access to that port.

⁴⁸ Innis and Lower, op. cit., p. 210.

line. In 1855 Allan's Montreal Steamship Line was granted a postal subsidy and averaged 12 days 3 hours for the westbound crossing and 11 days 6 hours eastbound. In 1859, the service became weekly summer and winter.⁴⁹ On the 27th of July, 1866, telegraphic communication between Valentia, Ireland, and Heart's Content, Newfoundland, was established. The price to send 20 words across the Atlantic in 1866 was £20, in 1867 £5 and fluctuated considerably until 1872 when the increase in traffic warranted the Anglo-American Telegraph Company in fixing the tariff at \$1 (4s) per word.⁵⁰ This rate structure would limit information transmission to the most vital kind, or to those with relatively broad interest such as quotations from the various markets and press reports. The accessibility to important up-to-the-minute information did reduce the risk involved in certain kinds of investment by Europeans in North America.⁵¹ But, for the most part, it probably had little effect, for the investment fraternity had already evolved a mechanism which permitted a fairly efficient movement of the funds, but which also involved a shift in decision-making power to North America and especially to the United States.

⁴⁹Ibid., p. 463.

⁵⁰W. J. Brown, "Canada and the Atlantic Cables," in J. Castell Hopkins, ed., Canada--An Encyclopedia of the Country (Toronto: The Linscott Publishing Co., 1898), pp. 536-543.

⁵¹It would be an extremely difficult thing to quantify the effect of the cables on the price of funds on either side of the ocean. Probably there would be an equalizing tendency, but the discount rate differential is so entwined with many other factors such as that aspect of risk which is not dependent upon communication, and the respective supply and demand on either side of the ocean.

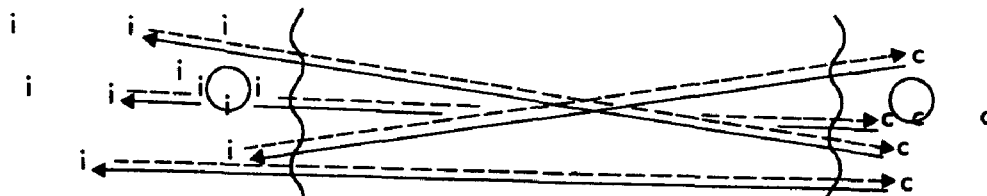
b. Some Alternative Organizational Adaptations

The uncertainties arising from the physical and perhaps psychological barrier of the Atlantic, and from a differing political and social milieu didn't prevent British investment and credit from entering North America. Mechanisms were found which acted as a "credit bridge." There were several mechanisms which were conceivable solutions to the movement of uncertainty reducing information and the investment and loan funds. Each had implications for the size and complexity of financial communities on the North American side and the European side. On the one hand, it was possible to have decision-making concentrated exclusively in London,⁵² and on the other hand, to have an extensive portion of the investment decisions made on the western side of the barrier. Figure 4-1 illustrates in simplified form, a few of the ways in which information and funds could flow. Each has differing allocations of decision-making strength between centers on the European side and the North American one, which acted as intermediary locations between potential creditor and potential debtor. In reality, of course, the flow of funds involved all of these alternatives. The balance, which was struck between them, was at once a partial determinant of the size of the North American financial community, and also a reflection of its size and complexity; its ability to attract domestic investment intelligence and capital seekers. It was also a reflection of its ability to draw local funds attracted by its investment skill, a particularly important factor

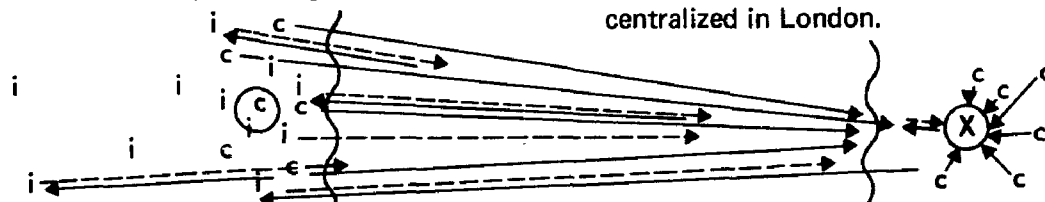
⁵²Or any other European city. London is used because it was the major nexus of nineteenth century capital flows.

FIGURE 4-1 Some Alternative Spatial Organizations of Decision Making Authority in the Servicing of the Trans-Atlantic Capital Flow

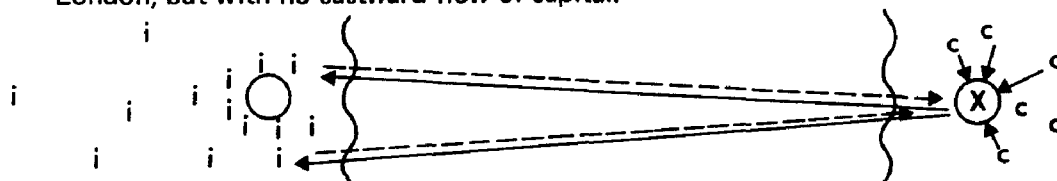
No. 1 Information processing and information and capital flow completely diffused.



No. 2 Information processing and information and capital flow completely centralized in London.



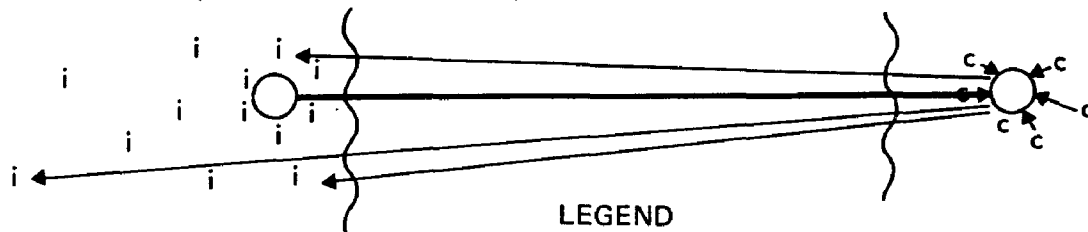
No. 3 Information processing and information and capital flow centralized on London, but with no eastward flow of capital.



No. 4 Information partially processed in North America and sent in condensed form to London – capital flow to American intermediary and then dispersed.



No. 5 Information partially processed in North America but the American intermediary does not allocate the Capital in North America.



LEGEND

- c creditor or potential creditor
- i investment opportunity
- financial community or potential community
- X center of information processing
- ← - - - - flow of unprocessed information
- ← - - - - flow of capital
- ← - - - - flow of processed information

when the foreign flow abated or underwent a proportionate decline relative to the total capital transfer.

The simplest manner in which information and the transfer of capital could take place is on a one-to-one basis, where the custodian of an investment opportunity plugs his particular project to the potential investor, after having acquired information on the existence of this potential creditor (Figure 4-1, Diagram 1). Alternatively, the investor might approach the potential debtor about investing money. In neither case is an intermediary involved. In an economy where the units in which capital is demanded is often larger than the savings of individuals or small groups, this form of capital transfer is quite insufficient. This is especially true where the ties between the two groups are limited by distance or the lack of contacts (usually commercial). In certain instances, such as the long-range commercial pursuits of British and New England merchants, the contacts were sufficient to make such a system workable over considerable distances. But it is an especially difficult thing to accomplish when the capital is required for a new industry in which the potential creditor is unfamiliar.⁵³ Such a non-systematic linking of holders of surplus capital and those who would use it, dependent as it is upon a high

⁵³For example, new industries in Britain, at times, were unable to acquire funds even at interest rates in excess of 20 per cent at a time when land-connected industries such as agriculture, brewing, milling, and mining were able to command large quantities of capital, although rates of return were zero or below. But financial innovations, such as the country banks and the use of checks, did allow innovating entrepreneurs to realize the benefits of their innovations. Lance E. Davis, "The Investment Market, 1870-1914: The Evolution of a National Market," J. of E. H., Vol. 25 (Sept. 1965), p. 355, and Rondo Cameron, Banking in the Early Stages of Industrialization (New York: Oxford University Press, 1967), pp. 58-59.

degree of chance, would constitute a barrier to capital mobility. This form of capital transfer across the North Atlantic did occur, but a more complex and formalized mechanism, involving intermediaries was more common. This pattern of information and capital movement does not involve the formation of financial communities at all, the activity being at the source of the capital and the terminus of the flow and as centralized or decentralized as these might be.

At the other extreme, the mechanism could have been arranged so that the entire financial intermediary function centered on London (Figure 4-1, Diagram 2). Here, the intelligence needed for allocation of funds in North America flows in diverse streams to the metropolis where it is digested and funds are allocated and sent to the various projects across the ocean. To compound the centralization, because of the information in the possession of London, an underdeveloped domestic capital mobilization mechanism in North America, and other reasons, North American funds could flow to London intermediaries. This money, either directly or through substitution, could then make the long return journey home. This would represent the ultimate in centralization and dominance and even involve an uphill flow of capital. On the surface, this is absurd in the context of the nineteenth century, but nevertheless an actual occurrence in the Canada of the 1830's.

Less extreme is the alternative pictured in Diagram 3. Here, the information is processed in London. Capital is attracted from the British sources, but unlike the previous case does not induce a flow of capital eastward across the Atlantic. On the basis of the long-range information flow, capital is allocated. Decision-making

takes place in London as far as this migratory capital is concerned. However, local savings are invested on the basis of local information, either directly or through a North American intermediary.

In the case of the fourth alternative, more decision-making power is held by North American intermediaries. Knowledge of various opportunities is acquired by intermediaries through inquiry on their part, or by being approached by promoters. On the basis of such information, the intermediaries in such cities as Philadelphia, New York, Boston, and Montreal could inform London on the advisability of particular investment opportunities. London on the basis of this advice could then forward money to its North American intermediary to be forwarded to its ultimate recipient. Or the North American middleman could endow what they consider favorable investments, and because of a favorable record of reliability they could gain funds from London. In either event, the net result is a considerable degree of decision-making power located on the western shore.

Case 5 represents a variant of this model. Here the middlemen in North America function as information-gathering services, which transmit advice to London but do not handle the return flow of capital, that going directly to the ultimate beneficiary. In a sense, the American intermediary functions as a credit rating service.

The diagrams deal with alternative ways in which financial activity could be distributed, and serve as an introduction to a comparative examination of the British-United States and British-Canadian relationship with respect to the location of the financial intermediaries. The diagrams, however, do not consider the effect of organizational and communications efficiency on the total quantity of

financial activity within the system as a whole. Most students of the nineteenth century attribute the reduction of spatial differences in interest rates to increased capital mobility resulting from institutional and communications improvements.⁵⁴ In a somewhat circular process, these improvements were often the result of a more sophisticated financial structure. This improvement resulted in greater capital mobility, which would have a tendency to increase the size and sophistication of the broader financial community. Thus, in referring to the British-North American relationship, if all other things were equal, institutional and communications improvements would result in a greater size and sophistication of the total financial structure, both in Britain and North America. However, organizational changes could involve shifts in the proportion on each side of the ocean. If other factors would not allow a centralization of activities on London, this growth process would be of obvious advantage to North American financial centers.

The most important difference between the organizational arrangements presented in Figure 4-1 is the way in which information and capital are transmitted. It either was channeled through middlemen on both sides of the ocean or flowed directly between North American borrowers and European suppliers and their native intermediaries. In one case, a bridge of confidence was substituted for

⁵⁴See Lance E. Davis, "Capital Immobilities and Finance Capitalism: A Study of Economic Evolution in the United States, 1820-1920," Explorations in Entrepreneurial History, second series, Vol. 1, no. 1 (Fall 1963), pp. 88-105; and Lance E. Davis, "The Investment Market, 1870-1914: The Evolution of a National Market," J. of E.H., Vol. 25 (Sept. 1965), pp. 355-393; and R. M. Breckenridge, "Discount Rates in the United States," Political Science Quarterly, Vol. 13 (1898), pp. 129-

a quantity of directly gathered information. In the first case, information was processed and benefited prior to transmission. In the second case, this stage takes place exclusively in Europe. The benefits for a North American financial community are clearly greater if processing occurs early in the sequence.⁵⁵

If one was to avoid the need for moving across the Atlantic, the vast amount of information needed to create an environment in which the investor could reach a satisfactory investment decision, then one needed a trustworthy contact in North America. These contacts would necessarily be individuals or organizations who were familiar with business on both sides of the ocean. A portion of the governmental elite of Imperial Britain were knowledgeable about Britain and Canada, but often were somewhat limited in their commercial aptitudes. More commonly, especially with regard to the United States, these financial contacts would arise among the merchant class. Up to the first decade of the nineteenth century, the merchant in the United States and later in Canada, was typically a non-specialized man of business. In association with other merchants, he built and

⁵⁵This is, of course, ignoring the secondary benefit of imported capital on financial communities. Capital imported without the services of a financial intermediary in North America as well as that imported with it, produced more income, and the income was often concentrated in the hands of higher income groups with a greater propensity to save and invest (See H. C. Pentland, "The Role of Capital in Canadian Economic Development," *op. cit.*, pp. 466-468 for a description of the private accumulation rising out of foreign investment. Also, see Gustavus Myers, History of Canadian Wealth (Chicago, 1914). The history of United States railroads and mining is replete with similar examples.) The domestic wealth often was the basis for a substitution of domestic capital sources for imported ones. Barring supreme advantages being possessed by foreign intermediaries, this capital would pass through the hands of domestic intermediaries (which were often the creature of the same men who benefitted from the imported capital in the first place.

owned the ships, carried the goods, and financed and insured their distribution. These merchants also had a network of kinship ties and tended to recruit successors from their own kin. "Family loyalties were important, indeed essential, in carrying on business in distant areas during a period when communication between ports was so slow and uncertain."⁵⁶ The merchants of America were financial intermediaries as well as merchants. The flow of funds to the foreign trade organization in the early part of the nineteenth century was typically from the English banks and not brokers to the British merchants and then to their American counterparts who in turn extended credit through their distribution system.⁵⁷ William Brown, of the house of Brown Brothers and Company, in 1847, gave testimony showing how British banking and commercial houses were financing the operations of American importers.

Mr. A. in the United States goes to my brother, my partner in America, and states that he wants to import £1000 or £2000 value of goods. They look into the credit of the house, and if they are satisfied, a Credit is opened with us. The order goes to the manufacturing districts, to some individual who is authorized by us, when the goods are ready, to draw upon us for the amount of this Credit.⁵⁸

Between 1800 and 1850 in the United States, merchants began to specialize, becoming wholesalers or retailers, importers or exporters, bankers or insurers, and a number of other specialists needed by

⁵⁶ Alfred D. Chandler, Jr., "The Role of Business in the United States: A Historical Survey," Daedalus, Winter 1969, p. 24.

⁵⁷ See Norman S. Buck, The Development of the Organisation of Anglo-American Trade (New Haven: Yale University Press, 1925), p. 133.

⁵⁸ From Parliamentary Papers (Great Britain), Report on Commercial Distress, 1847-1848, Vol. 24 (31), p. 262. Quoted in Norman S. Buck, op. cit., p. 155.

the increasingly high volume economy. The wholesalers became the most important element in the economy, but by the 1850's they were being supplanted in this role by transportation and manufacturing interests. But, throughout this two-stage transformation, the confidence of overseas contacts was a valued commodity. The American merchants, with their familial ties and their agents and captains in foreign ports had acquired confidence and contacts, and their offspring who entered into more specialized financial activities were able to carry on the contacts. The commercial class was in a position to attract promoters of various projects seeking financing, and this group was also in a position to attract capital from Europe based on their recommendations.

The organization and operations of the firm of Baring Brothers illustrates the allocation of some decision-making to the United States. The importance of information in the allocation of investment and loan funds did not escape these merchant bankers. "The wealth and credit of Baring Brothers and Company...rested upon the integrity and judgement of hundreds of remote correspondents as much as upon the decisions of the partners themselves. How could trustworthy and wise clients be chosen? How could a steady flow of information be acquired on American commodity prices, securities, and men in order that no opportunities be missed?"⁵⁹ Barings answered these questions in several ways. In 1828, Thomas Baring made an extensive tour of business centers in the United States to

⁵⁹Hidy, op. cit., p. 94.

acquire correspondents and information preliminary to the establishment of a system of operation. In New Orleans he made credit arrangements with several houses, and established a lifelong friendship with Edmond J. Forstall who became an important connection of the House of Baring in New Orleans. Oelrichs and Lurman of Baltimore, Prime, Ward, King and Company and Goodhue and Company of New York were made intimate correspondents, and the old ties with Gilmors of Baltimore were reinforced. An arrangement was made whereby the Bank of Pennsylvania consigned bonds of its home state to the Barings. An agreement was reached with Nicholas Biddle, for "the power of the Bank of the United States in the American economy in general and foreign exchange in particular was so great that a friendly, definite understanding as to mutual relationships was fundamental to the American operations of the London house."⁶⁰ The need for a trusted confidant and processor of information led the Barings in 1829 to appoint an agent, the Bostonian Thomas Wren Ward. His chief task was to select reliable correspondents and grant commercial credits. He also dealt with exchange accounts, security operations and the forwarding on trade, finance, and legislative changes, and politics. He provided newspapers and periodicals, and most importantly provided an evaluation of the capital and integrity of clients, enabling the Barings to maintain a private credit rating system.⁶¹ Ward looked after the

⁶⁰Ibid., p. 97.

⁶¹In 1841 the credit rating agency of Tappan and McKillop emerged, but Barings continued to use their own trustworthy system. Such a credit rating service represented an efficient way of transmitting information to Britain (and within the U.S. as well), but it still left a great deal of necessary information untouched which would

general interests in the United States and the New England area in more specific detail. But he was only part of an extensive system of intermediaries centered on New York, Philadelphia, and Boston. The Barings also brought Americans into the London offices, a major motive in doing so being the contacts which they brought with them. The early acquisition of Bates, an American, into the partnership of the London firm brought an immense business to the company. S. S. Gair, another American, was appointed in 1831 to the Liverpool House, and in 1849 Russell Sturgis, a Bostonian who once worked in the Manila and Canton trades, was taken into the London partnership. The Barings also gave considerable importance to family ties. Sturgis was Mrs. Bates' cousin. T.W. Ward, the long time general agent in the United States was succeeded by his son, S. G. Ward, and the senior partner of the confidential agent in Philadelphia, Barker Bros. and Co., was the younger Ward's brother-in-law.

If there had been much better communications over the North Atlantic, there would have been less need for American agents and the extensive amount of decision-making in the States. The American financial structure would have been weakened as a result. The Barings had considerable expertise, especially in their ability to anticipate periods of recession and crises and this expertise was partly dependent upon the opportunities which the City of London provided. The judgement of the House of Baring served as a source of strength to American financial houses associated with them. Some more intimately connected with the firm, such as Goodhue and Company

have to be transmitted through American intermediaries or directly to Britain.

of New York were even directly assisted by the Barings over financial embarrassments. For the U.S. houses, it was fortunate that the Barings found it necessary to work through them. If they had been able to compete with them in knowledge of the American scene and immediacy of service, without their assistance, a greater portion of the budding U.S. financial structure would have physically taken place in the House of Barings at Number 8 Bishopsgate.

The Barings were not an isolated case. W. and J. Brown and Company; Fletcher, Alexander and Co.; Overend, Gurney; Glyn Mills and other British houses had similar arrangements. Knowledge that an American institution or a British agent had influence with a British or Continental intermediary was sufficient to attract business to their address. It was said of Mr. Biddle that "Bonds of Mississippi, Michigan, and Illinois, of the territory of Florida, and even the struggling Republic of Texas received from him the impress that was to make them pass in the markets of the world..."⁶² Commissioners and agents having bonds issued or guaranteed by the states they represented came to the Bank looking upon it as an institution whose stature could put their credit on a firm basis.⁶³

In the United States-British financial relationships, the extensive use of American based intermediaries was the most common

⁶²John J. Knox, A History of Banking in the United States (New York: Bradford Rhodes and Co., 1900), pp. 77-78.

⁶³For an account of the role of New York financial houses such as that of Jay Cooke and J. S. Morgan, and the effect to the trans-Atlantic cable on the trans-Atlantic movement of money, see Robert Sobel, The Big Board: A History of the New York Stock Market (New York: Free Press, 1965), pp. 81-82.

means of moving information and capital over distance. However, there were instances of a by-passing of the American intermediaries. For example, the Illinois Central sent an emissary to England to negotiate a direct loan,⁶⁴ and before them the Illinois state canals were financed by agents sent to Amsterdam and London. Jay Cooke personally negotiated the sale of Northern Pacific bonds in Europe. James J. Hill, after first appealing to Wall Street for the funds with which to build the Great Northern went directly to Amsterdam bankers and succeeded in acquiring the financing which later was taken up by the Bank of Montreal. In describing the method of financing of the railroads south of New York, Chandler notes that "some of the dollar issues were sold directly to the limited number of investors in New York and, more usually, in Philadelphia. The sterling issues were often taken directly to London by railroad officers....These men usually contacted a London banking firm which normally became and remained the company's financial agent in Britain. The privately financed roads, however, relied much less than did the states on the agents of British mercantile houses operating in New York and Boston. Instead, they looked, as did most of the smaller roads, to Philadelphia and especially to Thomas Biddle and Company and to Nicholas Biddle's Bank of The United States of Pennsylvania."⁶⁵ Large projects constituted one of two groups that could by-pass American intermediaries

⁶⁴Frederich A. Cleveland and Fred W. Powell, Railroad Promotion and Capitalization in the United States (New York: Longmans, Green and Co., 1909), pp. 195-280.

⁶⁵Alfred D. Chandler, Jr., "Patterns of American Railroad Finance, 1830-1850," The Business History Review, Vol. 28, no. 3 (Sept. 1954), p. 252.

or the American offices of European houses. Because of their size, they could engender at least recognition in the financial markets of Europe. The quantity of information required to assess the larger projects in relation to the volume of the transaction were less than that required to assess the totality of lesser ones. But even with the larger projects, American intermediaries were usually made use of. If refused, however, it was possible to by-pass the east coast financial centers and appeal directly to trans-Atlantic sources.

The other group for which a direct appeal to European capital sources was possible, and even advisable was composed of small, highly speculative, and often fly-by-night operations, usually involved in mining. To promoters of such enterprises, difficulty of information transmission was an advantage. They were appealing to the gamble-investor caught up in the romance of distant hopes. Very often the stations on the capital acquiring system were near the mine prospect in places like Colorado Springs and San Francisco and in London with none in between. Those British investors willing to invest in small and distant mines were by nature speculative and judging from the simplistic frauds perpetuated on them, naive. The large promoter was able to appeal directly to a more sophisticated investment community in Europe and because of the prestige of the promoter and his backers succeed without using the services of a North American middleman. In this case, the investor was still investing in an environment of considerable information. The Western mining promoters in London were appealing, for the most part, to a romantic rump of the British investment community, who were prepared to invest with little accurate information. "Nine times out of ten"

warned Marmaduke Sampson, the city editor of The Times of London, "the promoters are mere western adventurers, with nothing to spare of either capital or character, who could not find a respectable banker in New York to co-operate with them."⁶⁶ Not all the promoters were American. Britons working as individual agents were also active. Some went to the mining communities such as Colorado Springs and attempted to find properties which could entice British investors to part with their money. In other cases, companies and syndicates were organized in London, sometimes to mine western resources but often to mine the English investor. By the end of the century, American brokerage houses in Colorado Springs maintained offices in London, and British houses established branches in such centers as Denver. Various "bureaus" arose in London to promote Western mining and advise British investors.⁶⁷

There was a common locational pattern in the distribution of intermediaries servicing the movement of capital from Britain to these high risk mining operations. They intended to be located either near the mining centers themselves or in London. The Seaboard cities of the U.S. (by this time mainly New York) were unnecessary for the movement of information because these cities were not in a position

⁶⁶Quoted in Mining World and Engineering and Commercial Record (London), Sept. 9, 1871, p. 577; and Clark C. Spence, British Investments and the American Mining Frontier, 1860-1901 (Ithica: Cornell University Press, 1958), p. 22.

⁶⁷These were organizations formed to collectively promote mines in various areas. The British and Colorado Mining Bureau, the London and Colorado Co., The Wyoming Mining Agency, and the Mining Bureau of the Pacific Coast are some examples of those active in Britain.

to appraise these distant mining operations. The operation of successful parent companies such as the Venture syndicate were in a class by themselves, appealing to a different sort of investor.⁶⁸ They possessed an internal communications system through their own trusted members to carry information to London. In a sense, it presented the replacement information acquisition through the financial system by an internal movement of information within a relatively tightly controlled, partly non-financial organization. When the firm sought financing, it did it for the most part directly in the London financial community.

Although it is impossible to establish a precise quantitative division, it is apparent that of the two alternative ways of moving information on investments and capital, from Europe to the United States, the method by which considerable decision-making authority was vested in American residents was the more common. The flow of information directly from primary sources in the U.S., without intervening processing by American intermediaries, did sometimes occur, especially where large users of capital, small highly speculative projects, and large British corporations such as Venture were involved. But, in general, the financial institutions of the seaboard cities, and especially (after 1850) New York, had a considerable allotment of the decision-making power involved in the migration of capital to the republic.

⁶⁸It was even rumored that Queen Victoria had money invested in the corporation. Spence, op. cit., p. 49.

c. The Canadian Adaptation

Canada, by contrast, possessed a somewhat different mix of methods to service capital movement across the ocean, the net effect of which was a smaller proportion of the financial decision-making taking place in the province than in Britain. Unlike the actions of American seekers, there appears to have been a greater tendency for Canadians to deal directly with Great Britain in the search for capital. As a result, financial intermediaries capable of processing information and making decisions to the satisfaction of British financial institutions either did not arise or were by-passed. There also was a greater involvement of government in the movement of capital and, unlike many of the state governments in the United States, the Canadian provinces dealt directly with London. Finally, there is evidence to indicate that London was functioning as the financial center of Canada, to the extent that capital was moving from Canada to Britain where the investment decisions were made and capital allocated to particular projects in Canada. This latter relationship represents an extreme alternative among the possible mechanisms which could be used to move investment capital.

When a financial community truly becomes dominant, it attracts money to itself and, in turn, reinvests it in areas it deems fit, based on the wider information it has. It acquires information which enables it to provide a service in the investment of funds, and the ability to provide this service attracts money to it. With its concentration of information from diverse sources, including North America, and its agglomeration economies, the City of London could have become a magnet for what surplus funds existed in North America.

This situation appears absurd in light of the fact that there were nodes in America which had the information and the wherewithal to profitably utilize North American savings and in various ways attract funds from Europe through their organization. In the case of Canada, however, the first alternative was used by some of the population. There was an uphill flow of funds, even though interest rates in London were 3 per cent compared to 6 per cent on landed security in Canada.⁶⁹ This counter-current reflects the relative impotence of the financial community of Montreal in comparison to United States seaboard cities such as Philadelphia, Boston, and New York. This situation is a reflection of the internal links within Canada as well as the trans-Atlantic ones. While the former involvement must wait for subsequent sections, the longer range link is of relevance to the present one.⁷⁰

W. H. Merritt, before an 1828 select committee of the British House of Commons, commented that "almost every British merchant for years past has been dissatisfied with the country, and a great portion of the capital accumulated in Montreal has been sent either to this country (England) or to the United States." One might expect such a view from someone as dependent upon credit as Merritt, a canal

⁶⁹W. H. Merritt, "Argument for the British Loan Bill in the Upper Canada Assembly," British American Journal, April 15, 1834.

⁷⁰This shipment of money to London is in the nature of investment funds, not deposits for making commercial payments, for a flow of funds of this kind was quite normal. As Bagehot said in 1870, "at whatever place many people have to make payments, at that place those people must keep money. A large deposit of foreign money in London is now necessary for the business of the world." Walter Bagehot, Lombard Street--A Description of the Money Market (London: Smith, Edder and Co., 1870), p. 34.

builder and resident of a debtor area such as Upper Canada, but Simon McGillevray, an archetypal-Montrealer, also emphasized the Montreal-England flow of capital in his testimony before the committee.⁷¹ Aitken suggests that the mercantile-financial community of Montreal had its roots in London and Liverpool, not in Canada. Many of them anticipated retiring in Britain and some of the English agents in Montreal spent five months on business in Canada and the rest of the year in England, going home in November and returning in April.⁷² This reluctance of Montrealers to invest with full enthusiasm in their own back yard is understandable in that the old extractive mercantile economy did not invite long-term capital investment. The fur and, to a lesser extent, the squared timber trade, did not involve investment in much fixed capital. The United States tradition had for a longer time involved the investment of capital in its rich food producing base, more capital intensive transportation, its merchant marine, and even its handicraft industry and manufacturing. The fur trade fled to Hudson Bay after 1821 and an economy of agriculture, lumber and small manufacturing succeeded it. The outlook of investors and their intermediaries in Canada displayed inertia in adapting to the new investment opportunities. Until this adaptation took place, some surplus capital migrated to Britain, as had been the custom in the North West Company's days.

⁷¹Great Britain, House of Commons, Report from the Select Committee on the Civil Government of Canada (reprinted Quebec, 1829), pp. 255-266, evidence of W. H. Merritt; p. 99, evidence of Simon McGillivray. Quoted in Aitken, op. cit., p. 529.

⁷²Ibid., pp. 529-30.

Of course, it would be a mistake to believe that all surplus investment capital flowed out of Montreal to the English market even in the '20's and '30's. For example, the Lachine Canal represented a considerable private contribution in this early period to the fixed capital of Canada. Later, the capital flow took on a local and a westward orientation typical of the United States. There is little indication the counter current existed to any extent past mid-century. But this uphill flow does point out a weakness in the Montreal financial community, a weakness which helped rule out its chances of being a monolithic financial center for Canada.

If the Montreal investment community was weak to the point that it was unable to mobilize a sizeable portion of the surplus funds lying on its own doorstep, for investment in projects which were obviously to its own advantage, it is not surprising that Canadian promoters became prone to by-pass the Montreal community in seeking British funds and to appeal directly to London. This circumventing of the North American hinge cities is encountered more frequently in Canada than in the United States.

A common way in which this circumvention took place was by the location of promoters and management in Britain. Two of the great developmental projects of Canada during the period, the Grand Trunk and the Great Western railways, were in part, managed directly from Britain. This limited the role which Canadian financial intermediaries could play in the financing of these railways. Prior to mid-century, most British overseas investment had been of the type which did not involve direct British control over the operations of the enterprises they financed. Continental railways were built to

be sold at a profit and industrial and mining undertakings in Europe involved the migration of the capitalist, and sometimes a change in nationality. The promotion and management of American railroads almost always remained in American hands. In the '50's, British capital began to move in volume to countries which had limited ability to carry out with ease the desired enterprises. Canada was among these areas, or at least imagined so by the British.⁷³

The original promoters of the Grand Trunk were located on both sides of the Atlantic. The idea for the line extended far back into the 1830's.⁷⁴ By 1851, the idea for a main line railway in Canada emerged as a project to be built and owned by the B.N.A. governments and sponsored by the Imperial government. The B.N.A. governments, led by Francis Hinks, the Inspector General (Finance Minister) of the Canadian government, and the contractor-politicians such as Alexander Tillock Galt, actively promoted the main line railway or some of its components. Between 1845 and the early 1850's, the Canadian politicians made strenuous efforts to procure a British government guarantee. They were functioning as the promoters, but were meeting with little success. The provinces considered borrowing on their own credit to finance the lines but were informed by their financial agents, Barings and Glyn Mills and Company, of the insufficiency of their credit.⁷⁵ In this environment, a British

⁷³Jenks, *op. cit.*, p. 195.

⁷⁴In 1832, Henry Fairbairn, a British Engineer, advocated a Trunk line for the British North American provinces. G. R. Stevens, Canadian National Railways (Toronto: Clark, Irwin and Co., 1960), pp. 48-49.

⁷⁵Stephens dismisses the Canadian myth that the Grand Trunk

promoter-cum-contractor-cum-financial intermediary, appeared in the form of Peto, Brassey, Betts, and Jackson. This organization immediately met with success. The British financial agents assured the Canadians that, while Britons would purchase their bonds with reluctance, "they...could not resist the attraction of a railway planned by Robert Stephenson and constructed by Peto, Brassey, Betts, and Jackson."⁷⁶ In 1853, the Grand Trunk railway prospectus appeared. Its directors included Thomas Baring, George Carr Glyn, and six members of the Canadian cabinet. The British absorbed 12 million pounds of Grand Trunk securities by the early '60's and the Canadian government substantially more. Of the 66,928 shares on the 1854 Grand Trunk's shareholders' list, the majority stood in the names of Baring Brothers and Glyn Mills and Company, their solicitors and clients. The ownership was effectively British, and of greater significance, the management was also. The head office was in London and the officers down to the managers level resided in that city.⁷⁷ The locations of the partners in this venture reveal a centralization on London rather than Montreal. This centralization at the source of capital was considerably greater than took place in comparable cases in the United States. The project had its inception among the merchants in most of the towns of Canada, who saw it as a means of acquiring commercial advantage. Of these towns, Montreal stood to

could have been built by Canadian promoters and contractors and flatly states that no Canadian group, including Galt and his friends, could acquire financial backing to build the railway. Ibid., p. 243.

⁷⁶Jenks, op. cit., p. 201.

⁷⁷H. A. Lovett, Canada and the Grand Trunk, 1829-1921 (Montreal, 1924), p. 72.

gain the most. Their merchants were well represented among the sponsors contained in the Charter of 1852.⁷⁸ There was no financial organization in Canada capable of attracting the necessary capital from Britain or taking on the risks involved. Thus, the merchants looked to the government for support and guarantees. In effect, the merchants merged in the guise of the government (which they largely controlled) to form a large financial intermediary! However, the mercantile and financial complex of Canada even when their resources were pooled and other elements of the community added could not by themselves muster British capital. In the United States, there existed institutions in New York (especially after 1850) that were capable of enticing British Capital into their domestic projects. In Canada, the only institutions which could handle the task of promoting and financing the Grand Trunk were British. It was only when promotion and management of the railway was passed to Brassey that the financial doors operated by Barings and Glyn Mills opened.

The Great Western, the other major railway project of the 1850's, was also extensively financed by the British and it also acquired strong British control of its operations. The railway was originally conceived by residents of London (Canada), the focus of the road, and Gore (Hamilton), the Lake Ontario terminus in the early 1830's. It was able to acquire local civic subscriptions, and it enticed Corning and his group of New York state financiers and a group of Detroit merchants into supporting the road. By the time of

⁷⁸Montreal provided six of her mercantile elite, Quebec six, Toronto two, Kingston two, and Port Hope, Cobourg, Belleville, Brockville, Prescott and Cornwall each provided one representative.

Confederation, the Canadian government had incurred a debt of almost four million dollars on behalf of the railway. But, during the height of the English railway mania in 1845, Sir Allan MacNab, a Hamilton politician and chief promoter, led a delegation to London and sold 95 per cent of the stock to a group associated with Glyn Mills.⁷⁹ A few months later, overriding control was taken by a committee of London stockholders. A remnant of power was held by a Canadian board of directors,⁸⁰ but in 1863 even this was ended and the headquarters were moved from Hamilton to London, England. In a somewhat similar manner to the Grand Trunk, the financing of this project involved strong managerial control from London, the use by the project organizers of only British intermediaries, the original promoters of the project going directly to London, by-passing Canadian financial intermediaries.

Lesser roads usually were managed in Canada, primarily because they could finance the projects through local subscription and had less need for imported capital than the trunk roads. As well, it was next to impossible to acquire British capital for these small railroads. They were relatively unknown projects in Britain, and there were few intermediaries in Montreal or Canada who were capable of enticing British money into them (with the possible exception of

⁷⁹As of January 31st, 1860, 166,100 Great Western shares were held in Britain and 3,699 in Canada. Stephens, op. cit., p. 124.

⁸⁰The company had two boards of directors, one British and one Canadian. The president resided in Surrey, England, the vice-president, managing director, and financial director in Hamilton. Great Western Railway of Canada, Report of the Directors of the Great Western Railway of Canada (London, 1858).

the Canadian government). The Bank of British North America, for example, tried to peddle the securities of the Quebec and Richmond Railway in London, but this proved unsuccessful. It was only when Brassey took an interest in this line as part of the Grand Trunk that the bonds could be successfully marketed. The Brassey firm in its relations to Canada was performing more than its construction role; it was a financial middleman and an adjunct of Lombard Street as well. Even such a relatively insignificant project (100 mi.) was forced to adopt an English intermediary in order to attract British capital.

The lack of a financial community in Canada is illustrated by adoption of the Municipal Loan Fund Act of 1852. This act provided a means of tapping the London market without the need for private financial intermediaries. This method of financing small railroads stands in sharp contrast to the methods then in use in the United States, where small railroad's securities were marketed in New York in the 1850's.⁸¹ The idea of The Municipal Loan Fund Act was very simple. "There were, it was argued, numerous opportunities for the construction of useful and profitable railways in Canada, apart from the main trunk-line, if only the capital could be obtained to build them. The difficulty in obtaining capital arose from the fact that the potentialities of these railways, and the credit standing of the municipalities which wished to build them, were not properly appreciated outside Canada. In particular, they were not appreciated in London where most of the capital would have to be

⁸¹See Alfred D. Chandler, Jr., "Patterns of American Railroad Finance 1830-50," The Business History Review, Vol. 28, no. 3 (Sept. 1954), pp. 260-263.

raised. If, however, the credit of all these municipalities could be pooled, and the feasibility of all the local projects examined and sanctioned by the Canadian government, then there was no good reason why the province of Canada, with its superior credit standing, should not float the necessary loans and then lend the money to the municipalities, who would invest it in the railways they desired."⁸² The provincial government issued debentures to cover securities issued by the municipalities and deposited in the Municipal Loan Fund. The various railway projects received through their municipal backers the money from the sale of the provincial debentures. By 1859 Canadian municipalities raised 9.7 million dollars by means of this mechanism. In Canada, in effect, the small railroads enticed the Canadian government into acting as a financial intermediary between themselves and the London financial community.⁸³ In the U.S. this role was adopted in the 1850's by the financial houses of New York.⁸⁴ Montreal was not in a position to take on the role in Canada.

In other sectors where British capital was acquired, a larger proportion of the financial decision-making authority was located in Britain than in the parallel case of the U.S. Banking, although

⁸²Easterbrook and Aitken, op. cit., p. 315.

⁸³In 1869 the only financial intermediaries the Canadian government were using were Barings, Glyn Mills, The Bank of Montreal, and the savings banks of the Maritimes. The British bankers performed the majority of the total services rendered the government. See Dominion of Canada, Sessional Papers, third session of the First Parliament, Vol. 3 (1870 session), Papers G-7, nos. 9-12.

⁸⁴By the 1850's much of the capital mobilized by New York was domestic and a considerable amount of the foreign capital was from the Continent.

primarily a means of better utilizing local capital for the provision of credits to the local commercial establishment did attract British investment. Some was invested directly into the shares of Canadian based banks such as the Bank of Montreal.⁸⁵ But other investment capital was placed in a British headquartered bank which operated exclusively in British North America. This bank, the Bank of B.N.A., was one of the largest operating in Canada, and a significant portion of the control was exercised from Britain.⁸⁶ The Bank of British Columbia which commenced business in 1862 had its Chairman (which filled the role of President), Secretary, Manager, and Directors located in London.⁸⁷

It would be wrong to assume that the small Canadian financial community played no role in the movement of British and continental capital to Canada. By the 1870's, the Canadian building societies, and savings and loan companies were working actively to move British funds to Canada and were meeting with success. As well, throughout

⁸⁵Of the 30,000 shares of the Bank of Montreal in 1870 (nominal value--\$200), 6,274 were listed as belonging to residents of Great Britain (3,059 in London). This constituted over half the number held by residents of Montreal (11,524). Compiled from the "Returns from the Several Banks of the Dominion of Canada--1870," Canada Sessional Papers, Vol. 3, no. 3, Papers 6 and 7, pp. 1-19. For a complete assessment of British investment in Canadian banking, see A. W. Currie, "British Investments in Canadian Financial Institutions, 1857-1866," J.C.B.A., Vol. 70 (1963), pp. 19-29.

⁸⁶At the time of Confederation, it was the second largest bank in the Dominion, with a paid-up capital of \$4,866,666 compared to the Bank of Montreal's \$6,000,000. In terms of assets, it was third with 8,826,993, after the Bank of Montreal and The Merchant's Bank of Canada. Source: Canada Sessional Papers--1874, Vol. 1, Miscellaneous Statistics for 1870-71-72, Table 3. See George Hague, "An Historical Sketch of Canadian Banking," in J. Castell Hopkins, op. cit., pp. 478-9, for a description of the organizational structure of the Bank of B.N.A.

⁸⁷Hague, op. cit., p. 491.

the period the chain of commercial credits which extended ultimately to Britain involved the financial communities of Canada and particularly Montreal.

Beginning after 1846 several building societies were formed primarily to mobilize capital for a long neglected Canadian agriculture. Initially, they were self-financing, depending upon the sale of capital stock and the small deposits which the banks did not encourage. The early building societies experienced a steady, if unspectacular growth rate prior to Confederation. Funds from abroad for agricultural development were not large before the '70's but the institutions were gradually acquiring the status necessary to acquire the confidence of overseas investors. "Their services as channels of investment funds from the old land were fundamental to an expanding agriculture, and for a quarter century they occupied the center of the stage in Eastern Canadian farm finance."⁸⁸ Terminable building societies gave way gradually to the more enduring "permanent societies" which were better able to acquire the confidence of the British investor. By 1875, the Canadian building societies or loan companies had \$773,000 outstanding in debentures payable in Britain, and this amount increased immensely so that in 1889 they had 40 million outstanding.⁸⁹ Typically, the building societies approached the London

⁸⁸W. T. Easterbrook, Farm Credit in Canada (Toronto: University of Toronto Press, 1938), p. 25. A number of loan companies tapped the British market in the period 1860-65, taking advantage of the plethora of cheap money existent in Britain at the time. But the major growth of these institutions commenced in the early '70's. See Adam Shortt, "The History of Canadian Currency, Banking and Exchange," J.C.B.A., Vol. 13, no. 1 (Oct. 1905), pp. 17 and 20.

⁸⁹Easterbrook, op. cit., pp. 26 and 28.

or Scottish intermediaries directly to sell their securities.⁹⁰ These building societies and loan companies, however, were not centralized in Montreal, but were largely scattered in the smaller cities of Canada, and their appeal to the British investor was usually conducted directly from these lesser centers to Britain without the use of a Montreal middleman.⁹¹

Between 1857 and 1866, British capitalists greatly added to their investments in banks and financial institutions in what is now Canada. Many invested in British firms operating in Canada such as the Bank of B.N.A. and several other less successful firms, and others invested in strictly Canadian firms. The British firms, usually headquartered in London, mobilized British funds into the securities of these institutions directly. The investment in the Canadian firms was sometimes conducted through agents sent to Canada to search out opportunities, or by the investors themselves on the basis of a journey to Canada. Sometimes it was undertaken on the basis of reports (often unreliable) in *The Times* of London or the Bankers Magazine.⁹² On other occasions, the Canadian Banks sold shares in London directly. As was the case with the mortgage and

⁹⁰For example, note the experience of The Canada Permanent Loan and Savings Co. in selling securities of the company to British investors in 1862 and 1875. G. R. Stevens, The Canada Permanent Story, 1855-1955 (Toronto: Canada Permanent Mortgage Corp., 1955), pp. 16-19.

⁹¹In 1863, Montreal had four building societies, all "permanent" with assets of \$369,533 compared to a total in Canada of approximately \$2,750,000. Statement of Affairs of the Permanent Building Societies in Canada, 1863-1864 in Canada Sessional Papers, Vol. 24, no. 3 (1865), Tables 7 and 8.

⁹²Currie, op. cit., p. 19.

loan companies, the net effect of the movement of British capital into Canadian banking was that Canadian institutions were benefiting directly from the importation of the British funds.

Canadian intermediaries were, of course, vital in the granting of trans-Atlantic credits. Like the movement of British capital into Canadian mortgages, the commercial credit system was based ultimately on the needs of small people and organizations who could not hope to acquire capital as individuals in Britain at a reasonable rate of interest (or at all). Commercial credit dominated the loan field until the era of canals and railroads and before the development of an adequate system of banking in the '20's and '30's, and it continued to play a reduced role in the following decades. "Long credits were extended by the importers of Montreal to the wholesalers in the larger centers, by the latter to the local merchants, and by these last to the customers. Owing to the extension of long credits to wholesalers, the chief merchants in the larger centers found themselves in difficulties, and were forced to look abroad for assistance to those houses in London where they obtained their goods for import."⁹³ The system, in its fundamentals, was not that different from the credit system of the North West Company. The critical role of the McTavish, Frobisher and Company, as a securer of English credit for the wintering partners, was not dissimilar to that of the Montreal merchants in relation to the interior traders, millers, and grain dealers. Communications, however, restricted the effectiveness of the merchants houses of Montreal in obtaining credit.

⁹³Easterbrook, op. cit., p. 8.

Canadian bankruptcy laws were unsatisfactory and British merchants, on occasion, took heavy losses. This impaired the credit of the Montreal community as a whole. Over such a distance, it was difficult for British merchants to discriminate among the applicants for credit. The Canadian banks arose, in part, as an attempt to remedy the poor credit conditions surrounding Canadian banking. The houses such as Forsyth, Richardson and Company which arose in Montreal as merchant bankers became the basis on which that city's financial community was founded. Its foundations did not lie so much in the provisioning of investment funds or even in the movement of British capital but in the creation of a system which would replace the unsatisfactory long credit link of the merchants to Britain.

Americans provided a quantitatively small amount of capital between 1821 and 1871, but this capital was often of the venture variety. For the most part, the flow of American capital into Canada did not involve the use of Canadian financial intermediaries, or intermediaries of any nationality. The sawmilling industry had a large component of American capital but as Lower states, "of few other industries is it so true as of the sawmilling industry that immigrant capital will not come alone. Few persons would be willing to buy bonds issued by a lumber company. Hence, invasions of American capital have meant invasions of American citizens with it, to build and operate the sawmills their money has provided."⁹⁴ Among the "few other industries" Lower mentions could be put early manufacturing. Prior to 1870, Americans owning Canadian manufacturing

⁹⁴Lower, op. cit., p. 102.

establishments were almost always active, resident operators. They imported negligible quantities of capital and, in effect, became Canadians. Where these manufacturers used the services of financial intermediaries or invested in them,⁹⁵ these institutions were usually Canadian.

Some American money helped support the Welland Canal and some Canadian railroads. In the case of the Welland Canal Company, the promoter of the project, William Merritt, sold the greater part of privately held stock to John Yates and a body of associates in Albany and New York. Frequently, credit was obtained for the company by three to six month drafts, drawn on Yates or his firm. Yates was able to cover these drafts through his excellent relationships with certain of Albany's banks.⁹⁶ The contact between the New York group and the Welland Canal promoters apparently did not formally involve the use of Canadian intermediaries, the company selling its securities to the Americans directly. In this case, where financial intermediaries were involved at all they were American. A similar situation occurred with the railways. When they desired American capital, they did not as a rule seek out a Canadian intermediary or agent of a U.S. house. They sent representatives to the various cities which might benefit from the road, or to cities that might be able to mobilize

⁹⁵For example, four of the founders and directors of the Bank of Hamilton were successful American-born manufacturers. A. St. L. Trigge, History of the Canadian Bank of Commerce, Vol. 3 (Toronto, 1934), pp. 66-67.

⁹⁶Aitken, op. cit., p. 69. For a geographic distribution of share holdings, see Journals of the House of Assembly of Upper Canada, 1836-37, Appendix 3, "Report of Committee on Welland Canal."

funds for the anticipated direct return on capital alone. For example, the City of Toronto and Lake Huron Railway (later the Northern) in 1837 set up subscription agents in various towns in Canada and also New York, Boston, Utica, Oswego, Rochester, Ogenzburg, Green Bay, Milwaukee, and Chicago.⁹⁷ Direct appeals to American holders of capital seems to have been a feasible way of acquiring capital from the American source.

A more important influence (than the servicing of the flow of investment funds) on the distribution of financial intermediaries between the U.S. and Canada is the trans-border distribution of bank notes. When the period opened American bank notes circulated in Canada, in 1819, Sir Penegrine Maitland, the Lieutenant Governor, in a letter supporting the formation of the Bank of Upper Canada, commented that "the province is over-run with American paper."⁹⁸ This provisioning of a circulating medium meant that American financial intermediaries were providing a service in Canada and the U.S. financial structure was benefitting. However, this pattern was short-lived and by the mid-twenties most Canadian money transactions were carried on with Canadian bank notes. The leading Canadian banks acquired a comparatively good record in respect to safety to note holders. Up to 1866, no Canadian bank of any importance had failed. As a result, Canadian notes began to circulate in quantity in the United States. In 1861, the Bank of Montreal established an agency in Chicago to facilitate

⁹⁷Armstrong, op. cit., pp. 37-38.

⁹⁸Adam Shortt, "The Early History of Canadian Banking," J.C.B.A., Vol. 5, no. 1 (Oct. 1897), p. 9.

the circulation of its notes, and in the same year it was estimated that upwards of three million dollars in Canadian bank notes were put into circulation in the North-West States.⁹⁹ On the whole, Canadian banks benefitted during the period from the international movement of bank notes, and the commercial loans which brought them into existence.

d. Montreal's Weakness in the Trans-Atlantic Intelligence-Capital Network as a Factor in the Bi-Polar Evolution of the Canadian Financial Structure

There are a variety of ways in which the decision-making authority could have been allocated on the Atlantic rim. The different organizational alternatives involved differing degrees of centralization on European financial centers (particularly London) and on the smaller North American centers. In this regard, the cities of the United States Seaboard, on the one hand, and Montreal on the other, stand in contrast. As intermediaries, the American financial institutions were powerful enough to attract money to themselves from Europe and British financial houses found it advisable to allocate a significant portion of their organization to the listening posts of Boston, Philadelphia, and New York. During the period, Montreal was in a less powerful position with respect to Canada. The role played by financial intermediaries resident in Montreal in organizing the financing of the major investment projects was relatively slight, the goal of people seeking financial support from

⁹⁹Adam Shortt, "Currency and Banking, 1840-1867," in Adam Shortt and Arthur G. Doughty, eds., Canada and its Provinces (Toronto: Glasgow, Brook and Company, 1914), p. 285.

Britain being London. The idea of first seeking this support through Montreal intermediaries was not a common one and where a Canadian intermediary was sought to assist in approaching London, it was most often the Canadian government. When British interest did pick up in the 1840's, it found an unsophisticated financial community in Montreal.

By the end of the period, Montreal had acquired a substantial body of financial intermediaries and certainly the largest such grouping in Canada, but it did this largely through its domestic activities, dealings in foreign exchange on the New York market, and sometimes providing financial services in the United States. Unlike the financial centers of the United States, it did not build up a body of experience in the provisioning of investment capital for domestic projects from British and other foreign sources. Thus, it did not possess the advantages which its function as a major node in the trans-Atlantic intelligence-capital network would have given it. Montreal's financial community arose primarily from endogenous forces, those emanating primarily from within Canada (and to some extent the U.S.), but those forces were not great enough in the first half of the century to create a financial community eminent enough totally to dominate the financial structure of Canada.

4. The Linkages Between Commerce and Finance

The relationship of Montreal to the British capital markets is important for what didn't happen in Montreal rather than what did happen. In simplified terms, Montreal was physically isolated from London and one would expect, as a result, that the Montreal financial

community would exercise a considerable amount of decision-making in connection with the importation of funds. However, Montreal did not possess sufficient size and sophistication to be able to completely fulfil a role as London's Canadian partner, as the United States financial community was able to do with respect to British investments in that country. Montreal's lack of success in mobilizing British funds, in a rather circular manner, was both a cause and result of its relative lack of financial stature. But, this low posture was also a cause and result of its lack of complete domination of the financial affairs of the domestic economy of Canada. This latter problem is the subject of the remainder of the chapter. The present section and the two following examine, in turn, the process by which the Canadian financial community arose from the mercantile establishment, the locational implications of its separate identity, the changing distribution of financial intermediaries during the period 1821-71, and the causative factors for the 1871 distribution of financial decision-making.

The financial activity in early nineteenth century Canada was so closely linked to the colonies' wholesale-trading system that it was locationally inseparable from it. To-day, the Canadian financial community is, in the main, independent (in its locational decisions) from the country's once dominant sector. With the increasing complexity of the economy, there has been a transformation and a portion of this transformation took place between 1821 and 1871. That evolution is important in explaining the location of financial intermediaries; if the locational linkages between the two sectors are strong, and independent of links to other sectors, the distribution

of decision-making in the two sectors would be identical. As it was, finance became at least a semi-autonomous activity possessing distinct locational characteristics.

Several processes occurred in the mercantile-financial complex which led to the increasing separation of the commerce and finance. The process of separation began with the initial concentration of commercial finance in the hands of the commercial banks and a few other specialists, rather than in the hands of the merchants themselves. There then occurred a broadening of the interests of the financiers. The financial structure which was initially the exclusive servant of commerce took on other interests, in railways manufacturing, mining, and real estate. These interests were usually an outgrowth of the central commercial interest, but increasingly towards the end of the period, opportunistic investment assumed greater importance. Other sectors of the economy than the merchants began to take an interest in banking and finance. The more complex economy not only provided new ways to utilize funds, but also infused new capital into the old commercially related financial structure. With an increase in capital and deposits from outside the mercantile establishment, the financial community became less dependent upon the trading complex. A third change in the financial structure also reduced the tight locational links of finance to the commercial activity. This was the evolution of institutions within the financial community which spread their corporate interests over broad regional or national areas. This phenomenon meant that even though the commerce of their city of inception underwent a decline in the percentage contribution to the nation's commerce, the financial

community could maintain its position or a large part of it.

Finance began to take on a life of its own, and the spatial attributes of commerce's offspring became progressively different from that of the parent. The banks of the '20's and '30's were creations of merchants and for merchants.¹⁰⁰ They represented a permanent, as against the early temporary, pooling of the funds of seaboard merchants. The eighteenth century merchant had had to arrange for his own funds, advances, and exchanges; that is every merchant was also a banker.¹⁰¹ "Under the new arrangement, each merchant fully anticipated that he would borrow back at least the whole of the capital he

¹⁰⁰Pentland, "The Role of Capital in Canadian Economic Development Before 1875," *op. cit.*, pp. 471-72. For example, "in 1834, the proportion of director's liabilities to total discounts was £47,426 to £119,051 for the Quebec Bank and £169,121 to £579,729 for the Bank of Montreal," Roeliff Morton Breckenridge, "The Canadian Banking System, 1817-1890," *J.C.B.A.*, p. 127. As well, the early ties are seen in the biographies of the pioneers of trade in Canada. The major decision-makers in the banks were almost always merchants or in *entrepôt* manufacturing. A look at the biographies of the leaders of the early merchant community readily reveals the intimate ties between the merchant and banking communities. John Molson, a brewer was president of the Bank of Montreal; Peter McGill, a merchant was a founder of that institution; and John Simpson, a merchant and miller, was a founder of the Ontario Bank. James Ross, a merchant and shipowner, was president of the Quebec Bank and the Guarantee Co. of N. A. David Torrence, a merchant, shipper, and China merchant, was a director of the Bank of Montreal. The list could go on through most of the corporate elite of the banks. See Stapleton Caldecott, "The Pioneers of Trade in Canada," in J. Castell Hopkins, ed., *op. cit.*, pp. 432-451; a series of articles for the *J.C.B.A.* in 1922, 23, 24, entitled "Founders of Canadian Banking" (Vols. 30, 31, and 32); William Stewart Wallace, *The Dictionary of Canadian Biography* (Toronto: The Macmillan Co. of Canada, 1926); and Gustavus Myers, *History of Canadian Wealth* (Chicago, 1914).

¹⁰¹For a description of the role of merchants as depositaries, discounters, and dealers in exchange in the early part of the nineteenth century, see W. S. Wallace, "The Place of the Bank in Canadian History," *J.C.B.A.*, Vol. 30 (1922), p. 144.

had subscribed and perhaps more but his funds now would be earning a return on those occasions when he did not require them. It was foreign to the notions of these early bankers that loans should be on a non-discriminatory basis, it was clearly understood that shareholders came first."¹⁰² It was not until 1860 that deposits rather than capital were considered the major source of assets of banks. Bills were drawn on England against Canadian products shipped there, and money was remitted through the banks, in payment for the imported goods. The merchants of Canada assisted the traders to pay cash to the farmer for his produce and extend credit for his purchases, borrowing money from the banks for the purpose. This was almost the exclusive function of the early banks, and has remained, in more complex form, an important aspect of banking to this day.

Within the banking industry, however, two functions arose which were comparatively unrelated to the financing of Canadian trade speculation and dealing in gold and exchange on the New York money market and the investing of funds on the New York call loan market. This became a very profitable operation for some Canadian banks. The Bank of Montreal became pre-eminent in North America in this field during the period. The premature demise of the early Bank of Canada was largely attributable to a brief decline in the American exchange business in the early '20's, as a result of an economic slump in that country. The arbiter of Canadian exchange rates was New York from the time of restoration of peace after the War of 1812.¹⁰³ As early

¹⁰²Pentland, "The Role of Capital in Canadian Economic Development Before 1875," *op. cit.*, pp. 471-72.

¹⁰³Adam Shortt, "The Early History of Canadian Banking," *J.C.B.A.*, Vol. 4 (1897-97), p. 360.

as 1826, Merritt complained that Montreal's savings were being exported to the United States. The Bank of Montreal soon established an agent in New York and it established a branch at Number 2 Wall Street, an address which well indicates the role the Bank of Montreal played in the New York markets. Between 1867 and 1872, the Bank of Montreal was the second largest dealer in the New York foreign exchange market after Brown Brothers, whose capital was estimated at 20 million. The Bank of British North America was also a prominent dealer. The Bank of Montreal even ranked larger than the agents of the Barings and the Rothschilds in New York. "Numerous, though often bitter tributes, were paid to the power of the Bank of Montreal by New York papers, which attributed several of the periodic crises on the New York gold market to the operations of the Bank of Montreal."¹⁰⁴ The separation of the interests of the commercial establishment of Montreal and the banks is aptly shown by the actions of the Bank of Montreal during the three years prior to Confederation. During these years, opportunities in fishing "the troubled waters of the New York gold and exchange markets" and the losses which the Bank of Montreal, in common with others, had sustained in Canada, prompted the bank to withdraw much of its funds from the regular Canadian market to employ them in the more profitable (for the Bank of Montreal) field of the New York markets.¹⁰⁵ This withdrawal of so much of its funds from the Canadian field resulted in serious criticism from within Canada. The action amounted to a denial of support to the regular trade and commerce of Canada and in considerable measure of

¹⁰⁴Adam Shortt, "The History of Canadian Currency, Banking and Exchange," J.C.B.A., Vol. 13 (Oct. 1905-July 1906), pp. 98 and 101.

¹⁰⁵Ibid., pp. 98-99.

Montreal. The bank by this date had adopted an independent attitude and had taken a position which proved profitable to the bank, but of dubious benefit to the position of Montreal as a commercial center. During the period 1821-71, a banker's outlook such as that of E. H. King, the general manager of the Bank of Montreal from 1857 to 1873, replaced that of the merchant founders.

The extension over a considerable geographic area of the business relationships of a city's financial institutions by itself promoted a separation between the city's commercial community and the financial community. The financial institutions made profit by providing their services to trade which did not pass through the hands of their home city. For example, in the United States, a large portion of the cotton trade from New Orleans to Britain was controlled by financial houses on the U.S. eastern seaboard. The Baring Brothers' interests in the cotton trade out of New Orleans and Mobile was handled for the most part by their Boston and New York intermediaries.¹⁰⁶ The banks established all over the inland United States were found to provide credit for their local trade, which did not necessarily pass through the commercial houses of any particular eastern seaboard city. Yet, as the century progressed, the correspondent relationships of

¹⁰⁶For a period, the Barings used agents in Mobile and New Orleans "...but by 1851 the telegraph was so effective that supervision of all American cotton operations was again invested entirely in Ward" (the Boston agent), Hidy, op. cit., p. 404.

¹⁰⁷See P. Girling, The Diffusion of Banks in the United States, 1781-1861. Masters thesis, Pennsylvania State University, 1968. Maps showing evolving distribution of banks are reproduced in Peter Gould, Spatial Diffusion (Washington: Association of American Geographers, 1969), p. 59.

the banks in a particular seaboard city (usually New York) increasingly benefitted from their role as money managers, whether the commerce they were assisting passed through their city of domicile or not. Often the deposits of outlying institutions in the banks of the larger emporia were there because it was convenient to maintain balances in these places. But of even greater importance were factors which were independent of the flow of commerce.¹⁰⁸ The banks in the larger financial centers were, in general, superior at the management of money. They were better largely because of their wider contacts, both geographically and sectorally. They were better able to move funds from areas of surplus to areas of deficit. In Canada, the branch banking system filled a similar role. The large Canadian banks and other financial institutions such as the larger insurance companies dispersed their interests over such a broad geographical area that their capital, assets, volume of business and profits became largely independent of the commercial welfare of any particular center.¹⁰⁹ To an operation like the Bank of Montreal, it was not of great consequence whether a Montreal wholesale house and bank customer was losing business to a Toronto concern who also banked at a Bank of Montreal branch.

The financial community also dispersed its interests sectorally. The older institutions such as the banks began to enter less

¹⁰⁸If one ignores the process of inception of the financial intermediaries.

¹⁰⁹The full impact of this tendency did not occur during the period 1821-1871. It was not until the turn of the century and the pronounced upswing in merger movements both in the economy in general and in finance that the financial institutions eliminated their more localized competitors and spread their corporate influence over broad areas.

direct paths of commercial promotion such as railways, and to indulge in opportunistic investments divorced from the traditional role of commercial banks. As well, the growth of institutions such as savings banks, insurance companies, mortgage companies broadened the population served by financial intermediaries. During the remarkable economic expansion of Canada from 1850 to 1857, the banks had constant temptations to overstep the bounds of traditional commercial banking and increase their profits by speculation. The chief speculative enterprises at the time were land and railway enterprises, and the banks began to be involved in both, some to an excessive extent.¹¹⁰ The Bank of Upper Canada, for example, invested large quantities of money in real estate during the boom of the 1850's. When the cycle inevitably ended, the bank had more assets in the form of landed property than in any other form, except discounted notes.¹¹¹ It also advanced \$1,000,000 to the Grand Trunk Railway in 1858-59, a good part of which ultimately was lost to the bank. The Commercial Bank, while less involved in real estate speculation than the Bank of Upper Canada, was even more involved in railway financing. For example, the bank became overly involved with the Great Western Railway. In 1858 and 1859, the Commercial Bank furnished large

¹¹⁰ Adam Shortt, "Currency and Banking, 1840-1867," in Adam Shortt and Arthur G. Doughty, *op. cit.*, pp. 277-282. For a discussion of the parallel American case (although during the 1830's), see Allan Pred, The Spatial Dynamics of U.S. Urban-Industrial Growth, 1800-1914, (Cambridge: M.I.T. Press, 1966), pp. 152-157.

¹¹¹ In February 1866, the bank's assets totalled \$5,816,000 of which \$1,515,000 were in the form of "landed or other property, \$2,717,000 in discounted notes and bills, \$345,000 in coin and bullion, and the remainder in other debts due the bank. From "Monthly returns of the Bank of Upper Canada," in the Canada Gazette, Vol. 25, p. 552.

advances for the Detroit and Milwaukee Railroad, a Great Western subsidiary. This advance of £250,000 eventually led to the bank's collapse in 1867. In the 1850's, the banks became involved in farm credit despite themselves. They commenced to grant cash credits to customers who had little other wealth than land, an approach which is practically indistinguishable from the previously avoided policy of loaning on the security of land.¹¹² This movement into real estate security was in response to the political pressure which was common throughout North America to extend long-term banking credit to farmers and other groups beyond the traditional realm of bank customers. In 1850, the Canadian legislature passed a free banking act in imitation of the New York system in an attempt to break the traditional link of banking and the commercial group.¹¹³ Strong links were also established with government, and the government on occasion was prone to dance to a different tune than that of the commercial interests of the country. The Bank of Upper Canada, for example, was a government institution. The government, ex-officially, created the bank, contributed a substantial part of its capital and deposits, and the bank in turn assisted the government and its friends. Government increasingly became an important depositor and customer of other banks such as the Bank of Montreal.

¹¹²A general act of 1850 declared the right of the chartered banks to hold and dispose of mortgages upon personal and real property, by way of security for debts. Under certain circumstances, they were allowed to hold in absolute title and buy and sell property.

¹¹³This attempt to establish a free banking system was unsuccessful. See Breckenridge, "The Canadian Banking System, 1817-1890," op. cit., pp. 267-281.

Early manufacturing also acquired considerable sums of short-term capital. Reports of the banks in the early 1870's indicated that very large amounts of short-term credit were advanced to farm implement companies to help finance their credit sales to farmers.¹¹⁴ The broadening of the banks' interests in manufacturing can be seen in the various revisions to the Bank Act from the 1850's through the Bank Act of 1891. With the increasing importance of manufacturing and mining, amendments were made to permit the advancing of funds on the basis of new products such as petroleum (in the 1881 Bank Act) and to expand the loaning power of banks to manufacturers (in the 1891 Bank Act).¹¹⁵ The banks were able to diversify, to expand into new markets for their services, and moderate the dominance which the mercantile community exerted.

New institutions, whose interests were less concerned with the direct financing of trade entered the financial community. By mid-century, insurance companies were well established in Canadian financial communities. In the early part of the century, British insurance companies (largely fire) dominated the field, frequently utilizing Canadian banks as their agents,¹¹⁶ or alternatively

¹¹⁴This was short-term capital. The Canadian banks were eager to maintain liquidity in their loans, especially after the shock of the fall of the Bank of Upper Canada and the Commercial Bank.

¹¹⁵Prior to 1891, there was little mention of manufacturers as a group which could issue warehouse receipts as security for bank financing. Loans could only be given by a reclassification of the manufacturer as someone connected with commerce such as a keeper of a yard or wharf, or purchaser of agricultural produce. The 1891 Act eliminated the legal problems, and rather belatedly recognized the importance of manufacturers to the banks.

¹¹⁶Innis and Lower, op. cit., pp. 651 and 654.

prominent mercantile firms such as Maitland, Garden and Aldjo, the agents for the "Phoenix Fire Office of London."¹¹⁷ The early Canadian firms, both life and fire, had close ties with the Canadian commercial establishment, large blocks of their stock being controlled by this group. But, their sources of funds, on the whole, came from a broader range of society (both sociologically and geographically) and their investments were not in the form of loans and investments in commerce related activities, but in mortgages, bank stocks, and municipal and provincial securities. The insurance companies, whether of British, American, or Canadian descent, rapidly extended their interests to the extent that the commercial welfare of their city of domicile was not of vital concern. Building societies and savings and loan companies established primarily to mobilize funds for urban and rural building and land financing became "to the real estate owner what the chartered banks were to the merchants, manufacturers and business community generally."¹¹⁸ During the period, the savings and loan companies did not have a geographically extensive branch network,¹¹⁹ their activities being somewhat localized, with an extensive scattering of head office locations among the towns and cities of Canada. They were appealing to a rather broad clientele in

¹¹⁷Kennedy, "History and Progress of Canadian Fire Insurance," in Hopkins, ed., op. cit., p. 318.

¹¹⁸Tomlinson, "Canadian Loan and Savings Companies," in Hopkins, ed., op. cit., p. 315.

¹¹⁹For example, The Canada Permanent Loan and Savings Company of Toronto, founded in 1855, did not open a branch until the 1880's (in Winnipeg). Prior to this, the company utilized local agents, or appraisers. Stevens, The Canada Permanent Story, 1855-1955, op. cit., p. 24.

agriculture, and various urban pursuits, often connected with commercial activity, but increasingly as the century progressed, with people in manufacturing, transportation, and other functions. Thus, the building societies and savings and loan companies would be concerned with the commercial stature of their home town to the extent that commerce dominated the demand for mortgages and the supply of local funds to the institutions. They were independent of mercantile pursuits to the extent that the local company was.

The increasing complexity of the economy also meant that there were new sources of money which could be attracted to financial institutions. With the sudden growth of the Canadian economy in the 1850's, private accumulation was facilitated, and those best able to take advantage of the incoming funds were no longer limited to businessmen belonging to the mercantile group. It is true that the wholesale business remained the most lucrative in Canada, and that importers did well. But, other groups accumulated considerable savings. Government officials had fared well from high salaries before 1850 and "perhaps better from bribes afterwards."¹²⁰ As was the case in the United States, one of the most successful groups in accumulating funds were the railway contractors. Samuel Zimmerman manipulated the Great Western and Casimer Gzowski made solid fortunes out of the Grand Trunk. The fruit of railway contracts permitted D. L. Macpherson to head a syndicate which was able to fight bitterly

¹²⁰Pentland, "The Role of Capital in Canadian Economic Development," *op. cit.*, p. 467. Pentland notes that "most of the mining concessions granted in the 1840's went to government officials; evidence not only of abuses of position but of substantial savings, for mining ventures were expensive."

with Sir Hugh Allan for the coveted transcontinental railway charter.¹²¹ In the 1840's, flour mills and grain elevators were built to take advantage of the 1843 corn law. Shipbuilding, tanning, shoemaking establishments, and iron and woodworking shops arose. Men even founded cotton factories in Sherbrooke and Thorald. In the 1850's, railroad shops built and repaired equipment, and the lines provided the basis for a marked expansion of the iron and machine industries. The 1866 meeting of the "Association for the Protection of Canadian Industry" was attended by very real manufacturers including those of wool and knit goods, cottons, linen, boots and shoes, furniture, tobacco, paints and oils, glass, sewing machines, and iron products.¹²² This more complex economy meant that inputs of funds into the financial sector were not limited to the money of the merchant community. Wealth was dispersed among other sectors, and to a considerable extent it was concentrated in the higher economic strata of society, a stratum with a greater propensity to save. These new sources of funds went into the securities of the already established banks, insurance companies, and savings and loan companies, and helped found new organizations. They also went into deposits, which, as the century progressed, became an increasingly important source of banking funds.

Bank deposits, in the first half century, played a relatively small role as a source of funds for the banks. Savings banks came on

¹²¹O. D. Skelton, Life and Times of Sir Alexander Tillock Galt (Toronto: McClelland and Stewart, 1966, first published 1920), p. 208.

¹²²Association for the Promotion of Canadian Industry, its Formation, By-Laws, etc (Toronto: September 1866), pamphlet. Quoted in Pentland, "The Role of Capital in Canadian Economic Development," op. cit., p. 470.

the scene in 1819 with the establishment of the Savings Bank of Montreal. However, these banks were a refinement of the old English "friendly society," and in many respects constituted a form of philanthropy.¹²³ Such institutions introduced many people then relegated to the lower rungs of the social ladder to the role of a bank as a savings institution. Many small hoards were tapped, and those without savings were frequently induced to begin acquiring some. The total of these small deposits was not extensive, but by the end of the 1850's some of the chartered banks came to see a savings department as a profitable adjunct to the bank's more traditional business. By 1871, the small deposits of individuals, along with the more long standing ones of businesses and the investments of relatively wealthy individuals constituted the major source of funds for the banks. Thus, they assisted in the formation of a financial community serving a general clientele, rather than a restricted mercantile one.

The Canadian financial intermediaries increasingly served a broader spectrum of Canadian society. In effect, the financial aspects of various sectors of Canadian enterprise came to be served by institutions whose linkages were as close to each other as to their customers in the broader economy. The significance of this partial separation of finance from commerce, and the accretion of the financial activities serving the broader community, is that as commerce, manufacturing or any other economic function pursued their various

¹²³John Irwin Cooper, "Some Early Canadian Savings Banks," J.C.B.A., Vols. 57-58 (1950-51), pp. 135-137.

locational destinies, a large portion of those possessing financial decision-making authority did not have to follow.

5. The Servicing of the Movement of Funds
Within Canada, 1821-1871

The advent of the Atlantic cable in 1866, instead of encouraging the further extension of the area tributary to the City of London, became a means through which orders were placed on the New York markets.¹²⁴ Wall Street had reached a position where it could dominate the American market even in this environment of improved communications. Shortly after, Appomattox the Wall Street area took on the form of the banking-insurance-brokerage complex that characterizes it to-day.¹²⁵ By 1890, it was noted that New York's idle rich "four hundred", which had occupied the top of the city's social pyramid, expanded to the "fifteen hundred" because "Wall Street got control and watered the stock."¹²⁶ People such as Frick, Carnegie, Rockefeller, and Heinze, found it essential to move to the center of the investment market to pursue their roles as "robber barons" and "social nobles." By the end of the century, it was extremely difficult for the capitalists in control to operate from anywhere else. In response to a report of a strong movement of Northern Pacific shares, James J. Hill, then in Seattle, found it necessary to clear the railroad's main line, commandeer a special train and start a

¹²⁴Sobel, op. cit., p. 82.

¹²⁵Ibid., p. 81.

¹²⁶Stewart H. Holbrooke, The Age of the Moguls (Garden City, New York: Doubleday, 1953), pp. 328-329.

fast run to New York.¹²⁷

Montreal did not reach such a dominating position. By the 1870's, it became the largest financial center in Canada, but not a dominating one. The nation's investment market had not become centralized and institutionalized in Montreal to the extent that it had in New York. The remainder of this chapter considers why this only partial concentration occurred in the period up to 1871. As in the case of the effect of agglomeration and urban economies on the concentration or dispersion of manufacturing, there are two basic parts to the problem of explaining the concentration or dispersion of financial intermediaries.¹²⁸ One concerns the extent of the advantages derived from the classical agglomeration economies, urban economies, and most importantly the access to financial intelligence, which are derived from a concentration of financial functions. The other involves the ease with which the external links of the financial community can be developed, links which permit both the financial community to acquire the raw materials of their business, namely information, and to provide a competitive service over distance.

The immediate problem of this section is to assess these two factors as part of the overall growth process of the system of

¹²⁷ Ibid., pp. 195-196.

¹²⁸ The problem can be conceived as fundamentally similar to that portrayed by Alfred Weber in his Theory of the Location of Industries, trans. Carl J. Friedrich (Chicago: University of Chicago Press, 1929), pp. 124-168. Weber considers the spatial expression of agglomeration economies as a function of the extent of the economies and the cost of transportation. These two factors would determine the position of the critical isodapanes within a system of manufacturing centers.

Canadian financial centers between the 1820's and the 1870's. By comparing the size of the various financial centers and the extent to which they could wield the differing advantages which emanated from their mass over distance, an appreciation of the distribution can be obtained. As well, by portraying the distribution of finance in the 1870's, a better understanding can be obtained of the spatial growth process which occurred within the financial system during the subsequent period, especially as related to the mining industry and the agricultural expansion on the prairies.

a. The Scale Economies of the Financial Communities of Canada During the Period 1821-1871

At the time of the first census in 1824 and 1825, Montreal and Quebec were the only centers which could qualify for urban status (see Table 4-6). Montreal, the largest city had only 1.4 times the population of Quebec, but 18.7 times the population of Toronto and 11.0 times that of Kingston. In 1831, the ratio of Montreal to Quebec was 1.2 and to Toronto, 11.0. By 1851, the ratio of Montreal to Quebec was still 1.4 but the ratio to Toronto had gone to 1.9. In 1861, Montreal's population was 1.8 times that of Quebec and 2.0 times that of Toronto. By 1871, Montreal's population of 115,200 was 1.9 times that of Quebec and 2.1 times that of Toronto.¹²⁹ During the

¹²⁹Kerr comments that "Montreal had achieved an impressive primacy quite early in its history," a primacy which it maintained until the successful challenge from Toronto in the second half of the nineteenth century." Donald P. Kerr, "Metropolitan Dominance in Canada," in John Warkentin, ed., Canada--A Geographical Interpretation (Toronto: Methuen, 1968), p. 540. However, up to 1871, Montreal exhibited a very weak primacy, at no time being twice the size of the second largest city. Apparently, Kerr neglected to consider Quebec.

TABLE 4-6 Population of Selected Towns and Cities of Canada,
1824-1871

Town or City	1824- 1825	1831	1841- 1844	1851	1861	1871
Montreal	31,516*	43,777	49,200**	57,715	90,323	115,200
Quebec	22,101*	36,179	38,923	42,052	51,109	59,699
Toronto (York)	1,685	3,969	14,249	30,775	44,821	56,092
Hamilton (Gore)	--	--	3,413	14,112	19,096	24,141
Kingston	2,849	3,820	6,292	11,697	13,743	12,407
Ottawa (Bytown)	--	--	--	7,760	14,669	21,545
London	--	--	2,078	7,035	11,555	18,000

* From the Census of Lower Canada--1825.

** From Journal of the Legislative Assembly of the Province of Canada

Sources: Census of Upper Canada--1824; Census of Lower Canada--1825; Census of Upper Canada and the Census of Lower Canada--1831, 1834; Census of Canada's--1841, 1851, 1861 (1841 for Upper Canada and 1844 for Lower Canada). Censuses prior to 1871 are included in the Census of Canada--1871, Vol. 4. Also, figures for Kingston in 1824 and 1831, and York in 1831 are from the Appendices to the Journal of the Legislative Assembly, 1824 (no. 10), and 1831 (pp. 92-93).

In the case of Hamilton, Ottawa, and London in 1824 and 1831, the population of the centers was too small to warrant differentiation between the village and their surrounding townships by the census authorities.

Because of the different census dates in Canada East and Canada West in the 1840's, a figure for 1841 was arrived at for Montreal and Quebec City by subtracting the average annual population change for the preceding decade times three. This figure is used to calculate the figures in Table 4-12 and Figure 4-4.

period, Montreal gradually increased its primacy index from less than 1.5 to almost twice that of the second largest city. Toronto increased rapidly throughout the period, especially between 1831 and 1851. However, Toronto did not become the second largest city in the country up to 1871. (By 1881, Toronto did move into second place.)

In regard to the size of the "commercial sector" (see Table 4-7) in 1851, Quebec City possessed the greatest number of people employed in this category. Montreal had .08 times the number of residents in Quebec, despite the fact that the former city had 1.4 times the population of the ancient capital. Toronto also registered proportionately larger than Montreal in this sector, Montreal possessing only 2.1 times Toronto's commercially employed as opposed to 1.9 times the total population. But, by 1871, Montreal had 2.1 times Quebec's employment in commercial trades as opposed to 1.9 times the population. In the same year, Montreal's population was 2.1 times that of Toronto and the same figure in respect to its commercial establishment. The position of Toronto was relatively worse in the '70's than it had been in the early '50's when Montreal was just recovering from her commercial plight of the late '40's. Quebec's position in regards to commercial employment steadily declined from the '50's through the decade of the '70's. Both these cities were less prominent, relative to Montreal in terms of total population and commercial activity in 1871 than in 1851.

The comparative indices of bank assets throughout the period vary sharply (see Tables 4-8 and 4-9, also Figure 4-2).¹³⁰ However,

¹³⁰ Largely because there were relatively few banks in each

TABLE 4-7 The Number of People in Commercial Occupations in Selected Canadian Cities, 1851-1881*

City or Town	1851	1861	1871	1881
Montreal	990	3,567	7,995	11,718
Toronto	762	1,231	3,877	6,618
Quebec	1,255	1,803	3,719	4,445
Hamilton	370	258	1,574	2,383
Kingston	262	311	806	1,006
Ottawa	106	220	1,102	1,506
London	141	246	989	1,431
Halifax	--	--	2,285	3,293
St. John	--	--	2,304	2,187
Winnipeg	--	--	--	752
Vancouver and New Westminster	--	--	--	478

*The Maritimes are not considered until Confederation.

Sources: The figures for 1851 and 1861 are derived from the Census of the Canadas by adding the number of accountants, general and insurance agents, bankers, clerks, commission merchants, exchange and money brokers, flower merchants, lumber merchants, and traders. The figures for 1871 and 1881 are the totals for the "commercial class" derived by the Census of Canada on those dates. The two sets of figures are not totally comparable but do provide an indication of the temporal change.

TABLE 4-8 The Distribution of Banks and Bank Assets Among the Cities and Towns of Canada, 1831-71*

City or Town	1831		1841		1851		1861		1871	
	No. of Banks	Assets £	No. of Banks	Assets £	No. of Banks	Assets £	No. of Banks	Assets \$	No. of Banks	Assets \$
Montreal	1	647,766	4	2,624,999	4	3,899,489	6	29,281,368	9	74,547,465
Toronto	1	425,000	1	514,516	1	1,189,808	2	11,680,851	4	21,653,737
Quebec	1	178,359	1	178,359	1	240,497	1	2,469,240	2	9,785,578
Hamilton	-	-	1	217,808	1	262,698	1	2,226,321	-	-
Kingston	-	-	1	587,882	1	1,006,717	1	9,262,467	1	-
Sherbrooke	-	-	-	-	-	-	-	-	1	1,367,978
Bowmanville	-	-	-	-	-	-	1	1,879,617	1	7,113,915
St. Catharines	-	-	-	-	-	-	1	595,695	1	1,226,998
Brantford	-	-	-	-	-	-	1	121,619	-	-
Niagara Falls	-	-	-	-	-	-	1	106,960	-	-

*Includes the chartered banks only; private banks and savings banks are omitted.

Sources: 1831--Roeliff Morton Breckenridge, "The Canadian Banking System," op. cit.

1841--Assets as of June, compiled from the "Report on the Banks," in the Journal of the Legislative Assembly of the Province of Canada, 1841.

1851--Assets as of May 1, from Journals, Canada, 1851, App. 1, numbers 1-8.

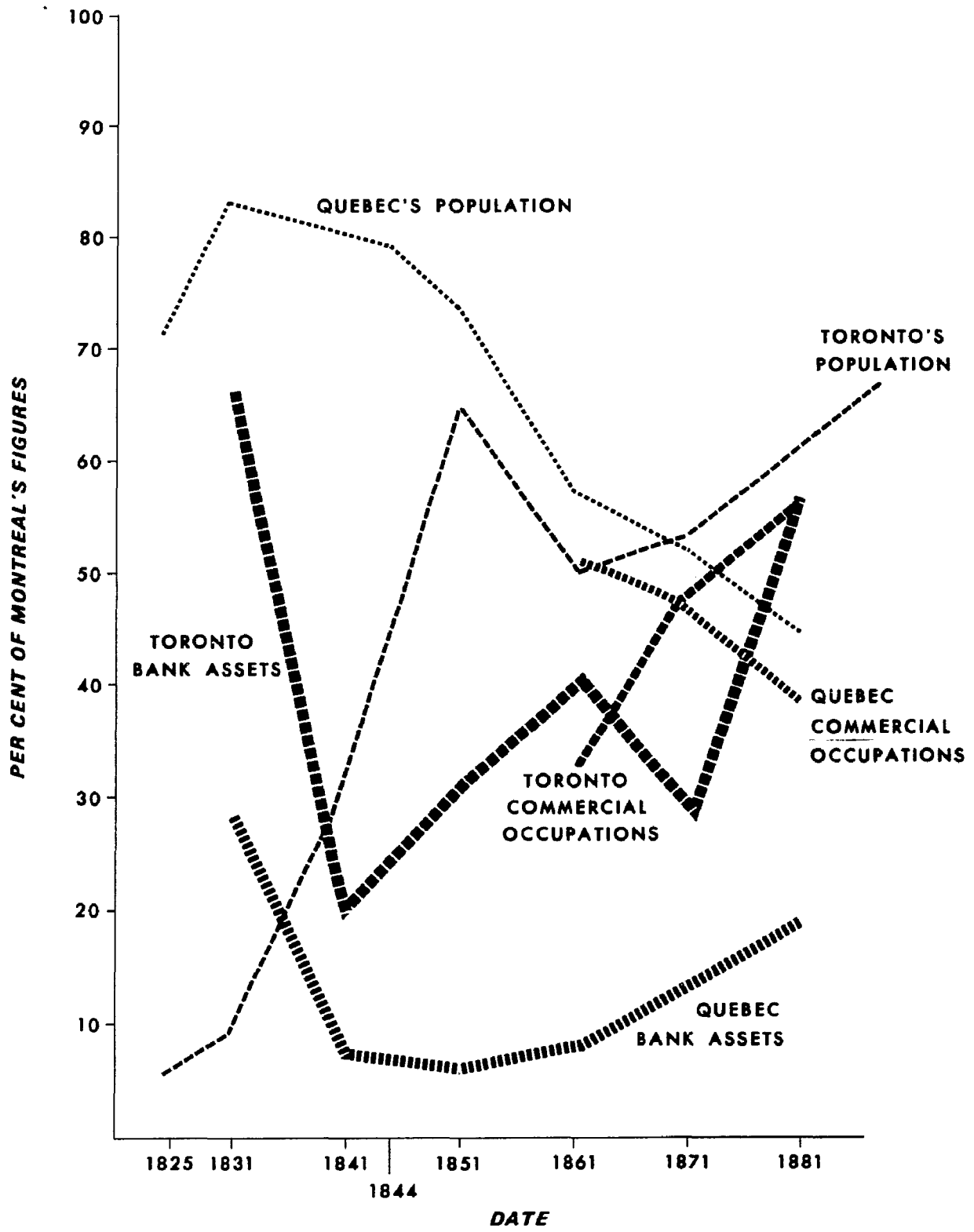
1861--Assets as of June 30th, from The Canada Gazette, 1861, Vol. xx, p. 1736.

1871--Assets as of June 30th, from The Canada Gazette, 1871, Vol. v, p. 122 and Canada, Sessional Papers, 5-17, Vol. xix, no. 3, p. 1861, "Returns from the chartered banks."

TABLE 4-9 Montreal's Population, Commercial Employment, Bank Assets, Income from Insurance Premiums, and Savings Company and Building Society Assets, as a Multiple of Those of Toronto and Quebec City, During the Period 1831-1881

	1831	1841	1844	1851	1861	1871	1881
POPULATION							
<u>Montreal</u> Quebec	1.2	1.3	1.3	1.4	1.8	1.9	2.4
<u>Montreal</u> Toronto	11.0	3.3	-	1.9	2.0	2.1	1.7
COMMERCIAL EMPLOYMENT							
<u>Montreal</u> Quebec	-	-	-	.8	1.9	2.1	2.6
<u>Montreal</u> Toronto	-	-	-	1.3	2.9	2.1	1.8
BANK ASSETS							
<u>Montreal</u> Quebec	3.6	14.7	-	15.9	11.9	7.6	5.4
<u>Montreal</u> Toronto	1.5	5.1	-	3.3	2.6	3.4	1.8
INSURANCE PREMIUMS							
<u>Montreal</u> Quebec	-	-	-	-	-	29.8	30.0
<u>Montreal</u> Toronto	-	-	-	-	-	3.5	2.5
ASSETS OF COMPANIES AND BUILDING SOCIETIES (1864)							
<u>Montreal</u> Quebec	-	-	-	-	2.8		
<u>Montreal</u> Toronto	-	-	-	-	.3		

**FIGURE 4.2 QUEBEC CITY'S AND TORONTO'S
POPULATION, PEOPLE IN COMMERCIAL OCCUPATIONS, AND
BANK ASSETS AS A PER CENT OF THOSE OF MONTREAL, 1825-1881**



with the exception of Toronto up to the early 1830's, in both the case of Quebec and Toronto, the ratio of Montreal's bank assets to those of the above cities was much greater than the ratio of their respective populations. This difference became most pronounced by 1841 and decreased somewhat by 1871. Toronto consistently fared better than Quebec in comparison to Montreal. In terms of the number of branch banks tributary to the banks within each city, Toronto in 1867 had fewer belonging to her institutions than did Montreal (see Table 4-10). Quebec had proportionately very few branches tributary to her banks.

Toronto dominated the building society and saving and loan company field (see Table 4-11 for 1864 statistics). This disproportionate distribution of assets in Toronto was quite pronounced within this field, but when compared with the magnitude of other types of financial intermediaries, it was relatively unimportant. The distribution of insurance companies was still heavily centered in Montreal in 1871, both in absolute terms and relative to the city's population (see Table 4-12). In 1871, the insurance companies domiciled in Montreal acquired 3.5 times as many premiums as did Toronto companies, and 29.8 times as many premiums as did those of Quebec City. There was a distinct difference in the nature of the companies resident in Montreal and those in Toronto. Montreal attracted the Canadian head offices of British and American firms to a much greater extent than did Toronto. Sixty-eight per cent of the total premiums received in

town and the birth or death of a bank is often sharply reflected in the total figures.

TABLE 4-10 The Number of Branch Banks Tributary to Banking
Headquarter Towns in Canada, 1867

Montreal.....	44	Toronto.....	28
Bank of Montreal	29	Bank of Toronto	5
City Bank	3	Royal Canadian Bank	20
Bank of B.N.A.	12	Bank of Commerce	3
Banque du Peuple	-	Kingston.....	18
Molsons Bank	-	Commercial Bank	18
Banque Nationale	-	Bowmanville.....	12
Banque Jacques Cartier	-	Ontario Bank	12
Merchants' Bank		Hamilton.....	6
Mechanics' Bank		Gore Bank	6
Quebec.....	6	Sherbrooke.....	3
Quebec Bank	5	Eastern Townships	3
Union Bank of	1	Bank	
Lower Canada			

Derived from George Hague, *op. cit.*, p. 475.

TABLE 4-11 The Distribution of Building, and Saving and Loan
Societies (both Terminable and Permanent) in
Canada, 1864

City or Town	No. of Societies	Assets \$	City or Town	No. of Societies	Assets \$
Montreal	3	498,689	London	4	541,205
Toronto	7	1,809,613	Ottawa	2	35,706
Quebec	4	176,966	Kingston	2	156,855
Hamilton	1	64,319	Guelph	1	13,461

Compiled from, "Statement of the Affairs of the Permanent Building Societies in Canada, 1863-64," in Canada (Province), *Sessional Papers*, Vol. 24, no. 3 (1865), Table vii and viii.

TABLE 4-12 The Distribution of the Canadian Head Offices of Insurance Companies,* 1871

City or Town	Number of insurance companies by nationality** of insurer	Total number of insurance companies	Total policies in force		Total policies in force in Canada by nationality of insurer	Total premiums received		Total premiums received in Canada in 1871
			\$	in force in Canada, by nationality of insurer		\$	in Canada by nationality of insurer-1871	
Montreal	Can.	3	11,089,912			143,731		
	Br.	17	137,636,299			1,464,744		
	U.S.	6	27,036,806	175,763,017		552,844	2,161,319	
Toronto	Can.	4	46,730,483			535,126		
	Br.	2	1,344,517			38,225		
	U.S.	1	1,622,100	49,697,100		47,028	620,379	
Quebec	Can.	1	6,919,300	6,919,300		72,725	72,725	
Hamilton	Can.	1	1,584,456	1,584,456		203,922	203,922	
Kingston	Can.	1	2,261,200	2,261,200		5,431	5,431	
London	Can.	1	10,289,787	10,289,787		42,776	42,776	
Brantford	Can.	1	2,122,050	2,122,050		52,620	52,620	

*Including Fire, Life, and Marine.

**Nationality is determined by the location of the head office of the company.

The Canadian Assets of foreign companies operating in Canada are not given in the statements of the insurance companies for 1871. Two companies, both American, did not maintain a Canadian office, but operated directly from their head offices in Boston and Philadelphia (The Union Mutual Life Insurance Co. of Boston had \$1,909,150 in policies in force, and collected \$82,303 in premiums in 1871. The Philadelphia based National Life Insurance Co. had \$741,000 and collected \$17,487 in premiums.)

Data compiled from "Statements Made by Insurance Companies in Compliance with the Act, 31 Vic., Chapter 48, Sec. 14, in Sessional Papers, 1871, Vol. 4, no. 4, Paper No. 8, pp. 2-31.

Submissions by the insurance companies during the 1860's and previous decades were only infrequently made and were incomplete.

Montreal came into the hands of British controlled firms and twenty-six per cent into American controlled companies. Only six per cent of the total was acquired by domestic firms. Canadian firms resident in Toronto acquired 86 per cent of the total premiums received by all firms in that city. The average size of the insurance companies in Montreal and Toronto was roughly the same, the Montreal firms receiving an average of \$83,000 in premiums and the Toronto ones \$89,000.

It is not possible to determine accurately the extent of the security trading in the various Canadian cities, there being no records of employment as brokers during this early period. Stock trading was over-the-counter and largely unrecorded. The first stock exchange, that in Montreal, was not incorporated until 1874, and the second, in Toronto, was not incorporated until 1878.¹³¹ It is difficult to infer a great deal from the date of arrival of the formal stock exchanges for, among other things, they could reflect how smoothly the over-the-counter market was functioning as well as the volume of trading. A more valuable indication is that in 1880 price leadership was considered by contemporaries to emanate from the Montreal exchange. In the publications of the time, the usual prices that were quoted were those of the Montreal Stock Exchange. Prior to 1883-84, the bond business was relatively slight, early activities being largely confined to government and municipal bonds.

In general, whereas Quebec City was the second largest city in Canada in terms of total population, it possessed a very small

¹³¹Report of the Royal Commission on Banking and Currency in Canada (Macmillan Report) (Ottawa: King's Printer, 1933), p. 26.

proportion of the total bank assets of the country, and had relatively few branches tributary to its institutions. And, between 1831 and 1871, this proportion declined. It also possessed an even smaller proportion of the insurance activity and mortgage and savings and loan business. Toronto's population, while rapidly approaching Montreal's up to the 1840's, declined slightly relative to Montreal's from 1851 to 1871, only beginning to gain on the larger city again in the decade of the 1870's. Unlike Quebec, Toronto maintained a much better position relative to Montreal with respect to its allotment of financial activity but, with the exception of two minor indices, they did not succeed in maintaining a level of financial activity as high as one would expect from the ratio of the two cities population.

Besides the banks in the three largest cities of Canada, several chartered banks were established in the smaller cities and towns (see Table 4-8).¹³² Some, such as the Commercial Bank in Kingston, were very successful. In 1861, for example, Montreal's population was 6.6 times that of Kingston but her banking assets were only 3.2 times that of the smaller city because of the success of this bank. The village of Bowmanville acquired the Ontario Bank in 1859 and this bank was able to extend its branch system to 12 other locations by 1867 and accumulate over seven million dollars in assets by 1871. Bowmanville was thus the fourth largest banking center in the country in terms of assets. This anomalous situation

¹³² Many banks were formed in smaller centers in Canada which did not have a corporate life of sufficient length to be netted by the 10-year benchmark dates in Table 4-8.

did not last, and by 1890 the bank was forced to relocate its headquarters in Toronto. The insurance industry was centralized in Montreal and Toronto by 1871, and this was especially true of the foreign-owned firms. The companies of domestic origin were more dispersed among the smaller cities and towns. Of the twelve Canadian firms in existence in what was the more restricted pre-Confederation Canada, five of them were located in places other than Montreal and Toronto. Eight of the twelve domestic firms were in the newly formed province of Ontario and half of these were outside Toronto.

Figure 4-3 traces the birth and death, the corporate mergers, and the locational shifts of Canadian banks from 1821 to the present.¹³³ It gives a continuous picture of the centralization of banking headquarters in Canada. Up to 1825 in Upper and Lower Canada, six note-issuing banks were created, of which four remained by that date. Of these six banks, three were located in Montreal, one in York (Toronto), one in Quebec City, and one in Kingston. Of Montreal's three, one was more-or-less stillborn (the Canada Banking Company) and another (The Bank of Canada) had floundered by 1831. The remaining one, the Bank of Montreal, soon became the largest bank in Canada. The Bank of Upper Canada, a quasi-governmental bank located in the capital of York, was from its early days a relatively strong institution, as was the Quebec Bank in Lower Canada's capital. The "pretended Bank of Upper Canada", located at Kingston, was sabotaged by political manipulations in York, but was eventually resurrected

¹³³While the diagram covers the period up to the present, only the portion up to the 1870's is of concern in this section.

YARMOUTH PICTOU LIVERPOOL **HALIFAX** ST. ANDREWS MONCTON FREDERICTON ST. STEPHEN RUSTICO CHARLOTTETOWN SU

1950

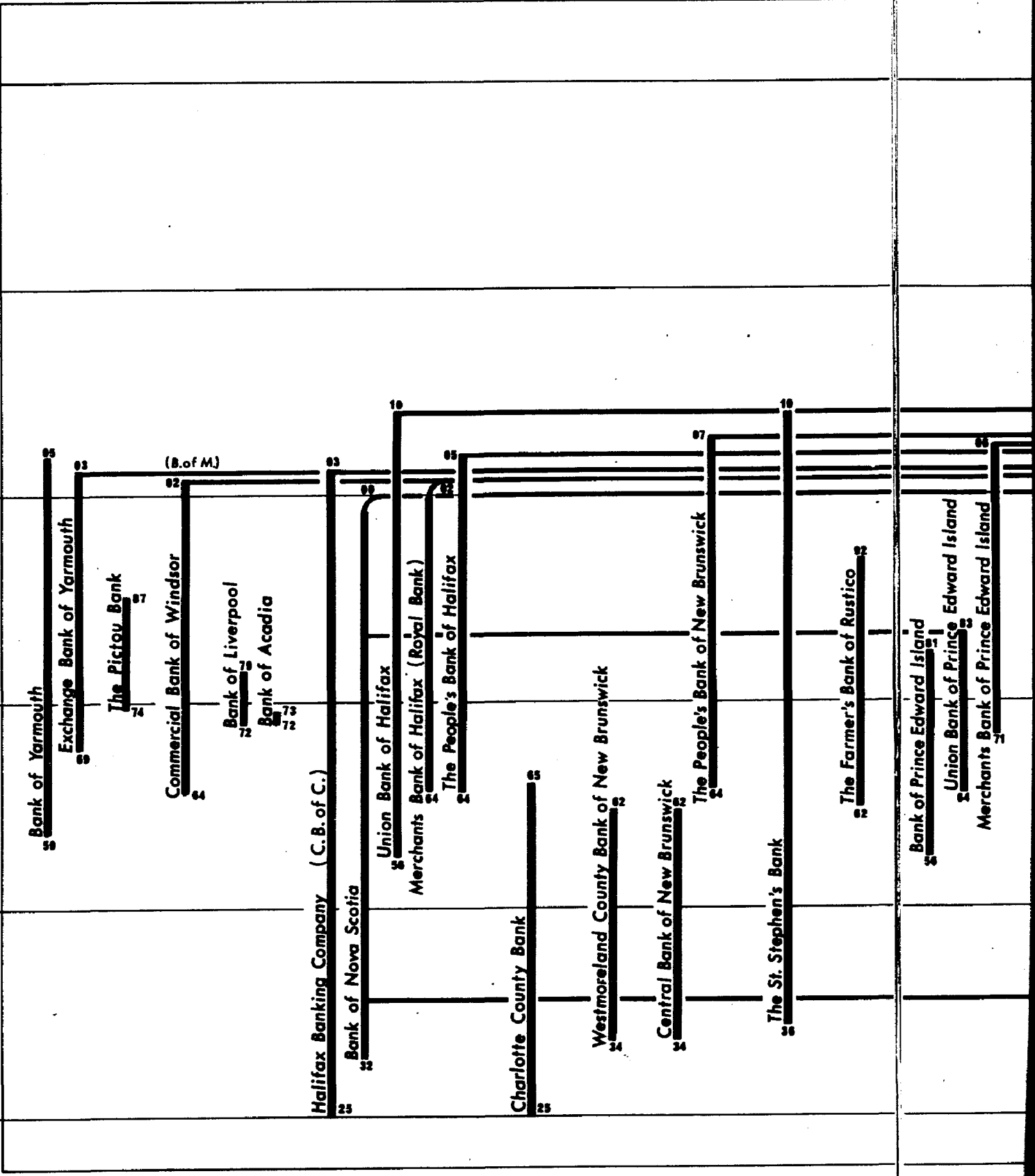
1925

1900

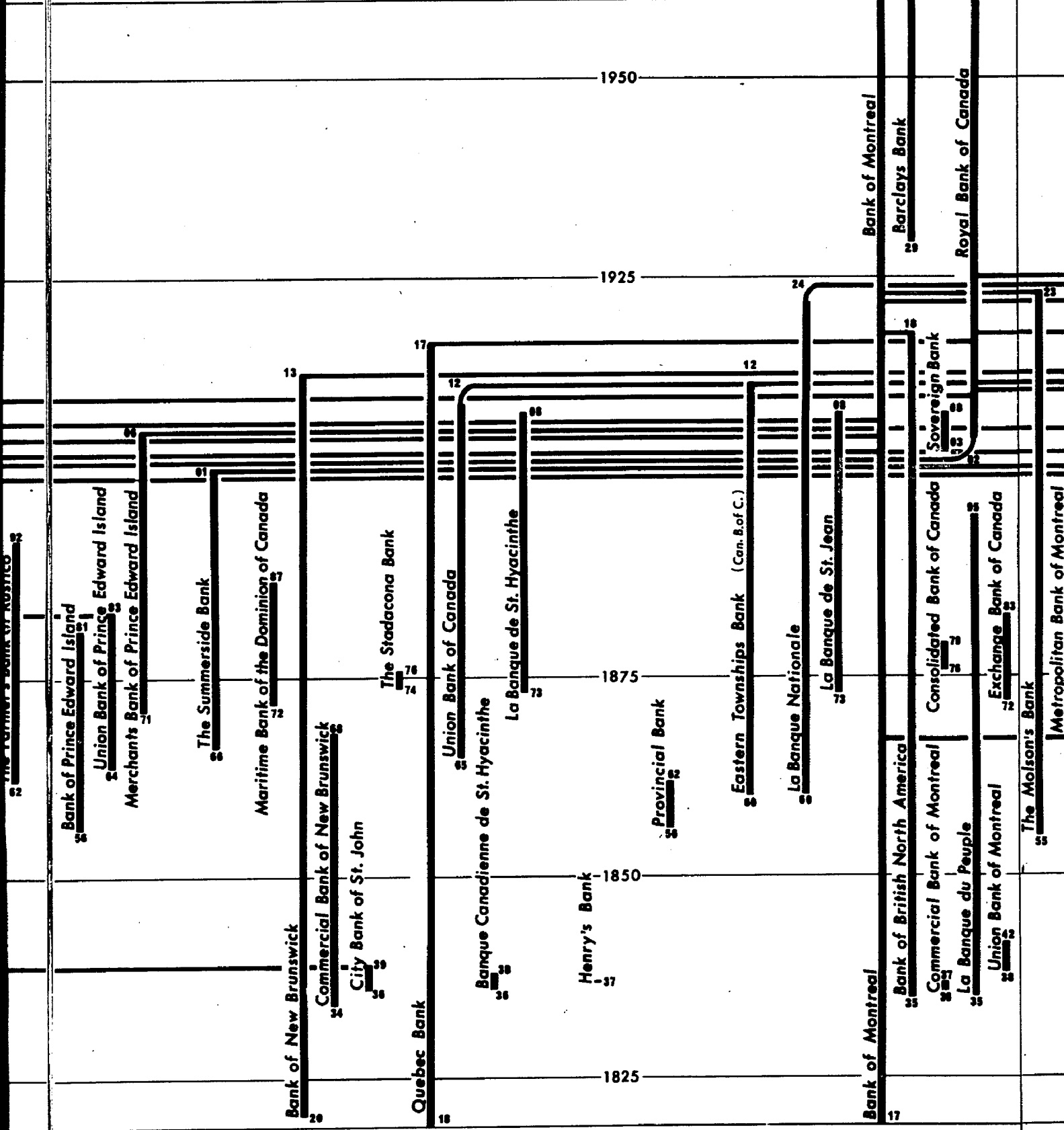
1875

1850

1825



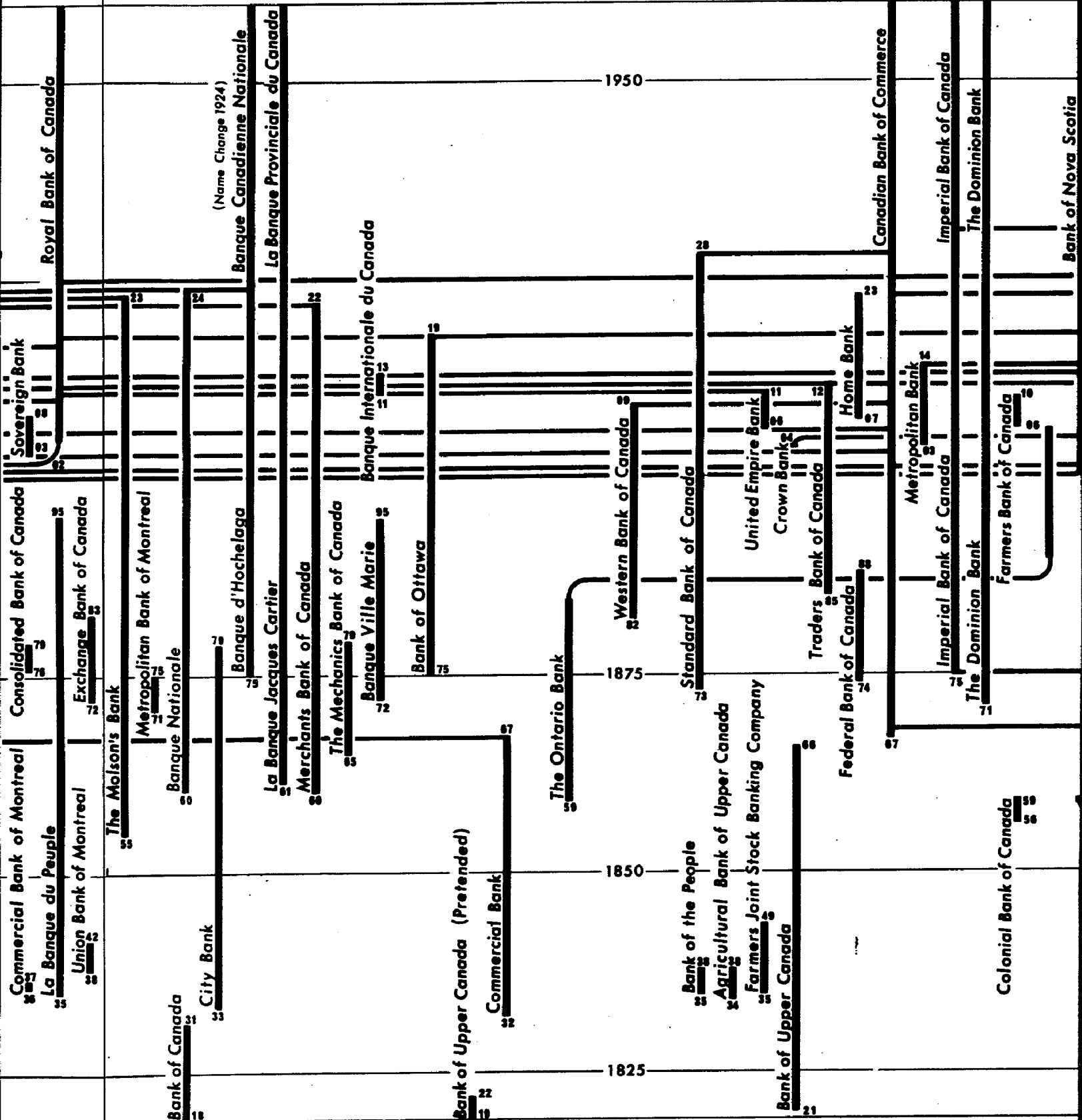
CHARLOTTETOWN ST. JOHN ST. HYACINTH STANSTEAD ST. JEAN
 SUMMERSIDE QUEBEC LA PRAIRIE SHERBROOKE M O N T



M O N T R E A L

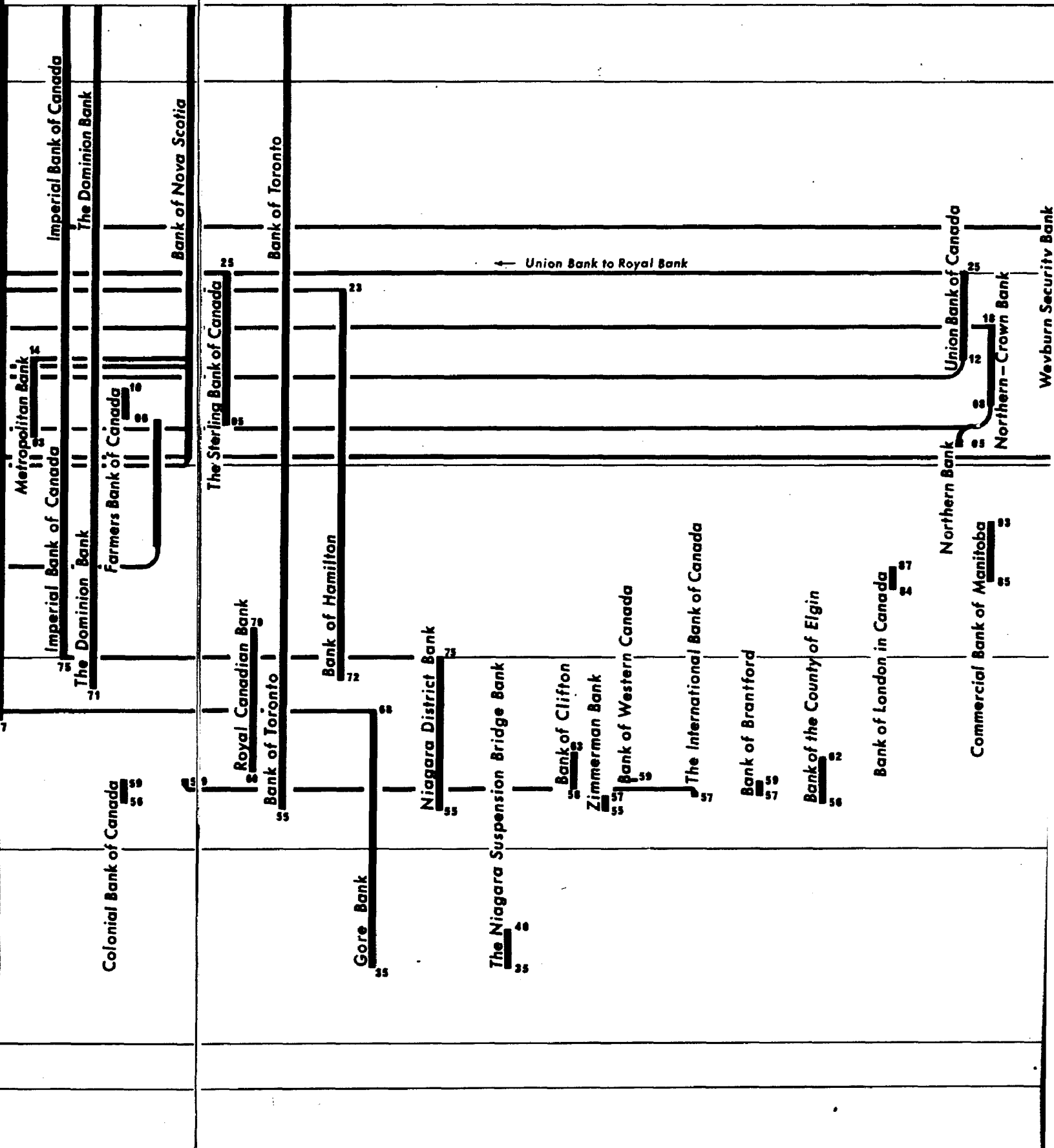
KINGSTON OSHAWA
OTTAWA BOWMANVILLE

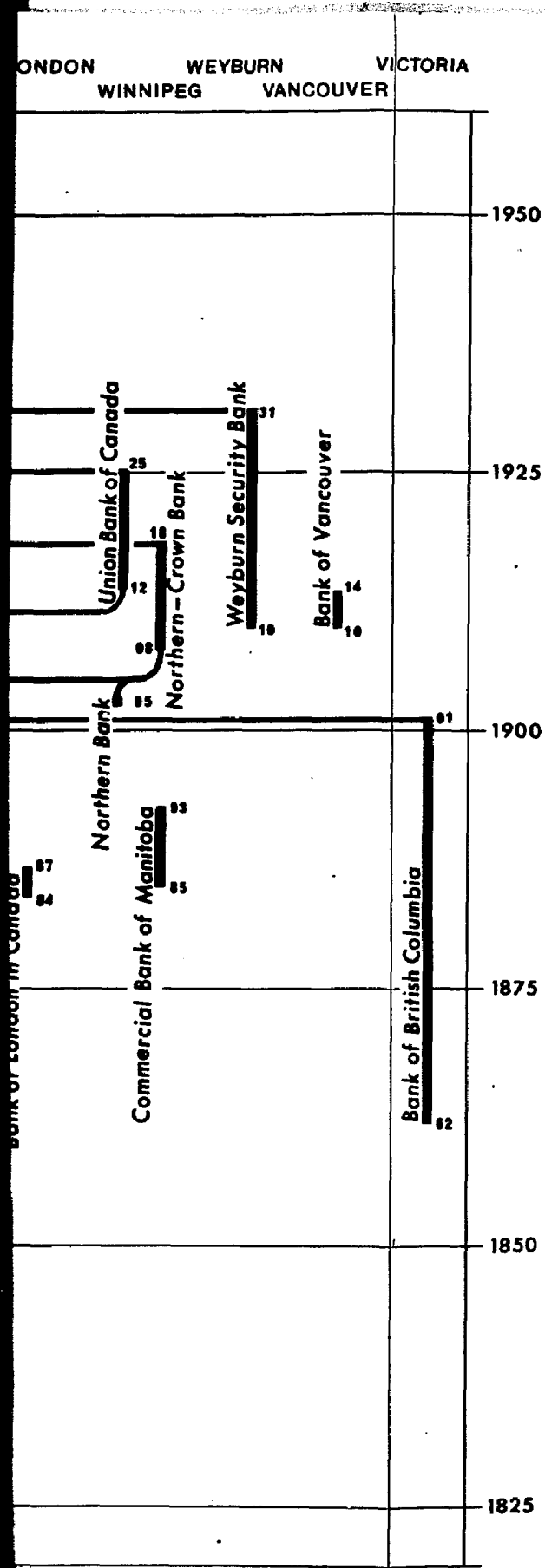
T O R O N T O



ONTARIO

HAMILTON ST. CATHARINES QUEENSTON NIAGARA FALLS CAYUGA BRANTFORD ST. THOMAS LONDON WINNIPEG WEYBURN





THE EVOLVING DISTRIBUTION OF BANK HEADQUARTERS IN CANADA

(Note Issuing Banks Only)

LENGTH OF BAR IS PROPORTIONAL TO THE DURATION OF CORPORATE EXISTENCE IN A PARTICULAR CENTER

MERGER WITH, OR NOTES REDEEMED BY ANOTHER BANK.

MOVEMENT OF CORPORATE HEADQUARTERS

SOURCES:

- C.S. Howard, "Canadian Banks and Bank Notes: A Record" in *Journal of the Canadian Bankers Association* Vol. 57-58 (1950-51) pp. 30-68
- *Returns of the Chartered Banks of the Dominion of Canada*
- *Canada Sessional Papers*
- *Canada (Provincial) Sessional Papers*
- *The Financial Post Survey of Industrials*
- R.M. Breckenridge. *The Canadian Banking System, 1817-1890* (New York: Macmillan - for American Economic Association, 1895)
- B.H. Bechart, *The Banking System of Canada* (New York: H. Holt and Co., 1929)

FIGURE 4-3

in 1832 as the Commercial Bank of the Midland District (later the Commercial Bank of Canada), and became the fourth strong institution in the country. By 1825, four cities had the foundations of a banking structure. These banking organizations were the core around which the incipient financial communities were to grow. By 1831, Montreal had bank assets of £647,766 (entirely the Bank of Montreal's), Toronto had two-thirds as much, but Quebec had only 28 per cent. At this very early date, Toronto had a banking structure comparable to that of Montreal, despite the much more limited population of the city to the west. By 1841, Montreal had acquired three new banks, and had increased its banking assets to over 2.6 million pounds. Toronto still possessed only the Bank of Upper Canada and its relative position declined temporarily to the point that it had banking assets only 20 per cent as great as those of Montreal. Quebec's bank remained relatively stagnant. Two more towns became banking centers by 1841, Kingston and Hamilton. The Commercial Bank met with great initial success in attracting capital. The Gore Bank founded in 1835 at Hamilton had, by 1841, acquired £217,808 in assets, a figure almost half that of the venerable Bank of Upper Canada. As well as the successful banks, there were others that had not prospered. Between 1831 and 1841, 13 banks opened their doors, but by 1841 only five remained.¹³⁴ Of the new banks established during this period, nine were located in Montreal and Toronto. The established banking centers were apparently already acting as seedbeds for new institutions. Between 1841 and 1851, no new banks were formed but the already

¹³⁴Including unchartered banks.

established banks and especially those of Montreal and Toronto greatly increased their assets. Relative to Montreal, Quebec remained in the poor position it reached between 1831 and 1841. Between 1851 and 1861, a surge of new banks occurred, with 16 being chartered. Of these, three were formed in Montreal, three in Toronto, and the remainder in scattered Canadian cities. The three formed in Montreal were successful, lasting in two cases to the mid-1920's and in the other case to the present. Of the three Toronto banks, one lasted to the present, one past 1879, and the remaining one soon failed. Of the banks formed in the lesser communities, four did not survive until 1861, and eight did not endure to 1871. Only the Ontario Bank, which later moved to Toronto, and the Eastern Townships Bank of Sherbrooke were able to survive as independent entities into the twentieth century. The unusually high percentage of banks formed in the lesser communities of Canada was, in part, a reflection of the new "Free Banking Act" of 1850, which introduced a system similar to that of New York State. The law sprang from the animosity, among the rural and small town population, to the domination of the old established banks of Montreal and Toronto. "Complaints of a lack of banking facilities were frequent, and there was a widespread agitation for an increase of bank capital, for the territorial extension of banking facilities, and particularly for the incorporation of small banks in the lesser towns, where local opportunities for accommodation were much desired."¹³⁵ Five banks were founded under the Act, but only the Molson's Bank of Montreal became a success. It

¹³⁵Breckenridge, "The Canadian Banking System, 1817-1890," op. cit., p. 8.

became obvious that the Act was a failure by 1857 and it was finally repealed in 1866. These small unit banks could not compete successfully with the already established larger institutions. By 1861, Montreal-headquartered banks controlled more banking assets than the other cities and towns of Canada put together. Toronto possessed almost half of the assets attributable to non-Montreal banks. Between 1861 and 1871, seven new banks were formed in the province of Canada, and Ontario and Quebec. Of these, four were located in Montreal, two in Toronto, and one in Quebec. There were none formed in the lesser cities and towns. In this decade as well, the environments of Montreal and Toronto proved congenial to the establishment of new institutions and to their survival. In 1871, Montreal had nine banks with a total of \$74,547,465 in assets. Toronto had four banks, with a total of \$21,653,737 in assets. Quebec was still far behind. Hamilton and Kingston, the only remaining sizeable towns, had lost their banks. Only the small towns of St. Catharines and Sherbrooke and the anomalous village of Bowmanville retained banks.

Between the time when banking began in Canada in the early 1820's, and 1871, there remained a continual concentration of banking activity in Montreal and Toronto (see Figure 4-3 and Table 4-13). Most new banks were formed in these two cities, and more banks failed in the lesser communities. But, the spatial expansion of the influence of the "metropolitan" banks is most pointedly revealed by the imperialistic acquisition of the banks of smaller places. During the period up to the 1870's, this merger movement was less pronounced than that which occurred later around the turn of the century, but it illustrates that even during this relatively early period,

organizations with headquarters in the larger financial communities could better succeed in operating banking establishments in lesser communities than the locally headquartered banks themselves. Toronto, despite its smaller size relative to Montreal, absorbed more banks up to the 1870's. However, the Commercial Bank was absorbed by the Bank of Montreal, which meant that Montreal surpassed Toronto in the quantity of assets acquired. All of the acquisitions were in Canada West and, by the mid-1870's, only two banks were left in Ontario outside of Toronto. This early pattern of mergers shows a regional bias. All the banks acquired by Toronto or which moved their headquarters to that city, were located in fairly close proximity, none being situated more than 100 miles away. The lone Montreal acquisition was the closest bank in Canada West to that city. It was not until the turn of the century that banks in Eastern Quebec and the Maritimes were merged with institutions headquartered in the Montreal and Toronto financial communities. Later, the pattern of acquisitions showed little negative decay with distance, space being a relatively minor consideration. But, judging from the relatively small sample during the period before the 1870's, space was of some significance.

TABLE 4-13 The Percentage of Total Bank Assets in Canada Belonging to Banks Headquartered in Montreal and Toronto, 1831-1871

Date	1831	1841	1851	1861	1871
Percentage of Total Bank Assets	86%	76%	75%	71%	83%

Derived from Table 4-8.

It is clear that Montreal and Toronto had emerged as twin banking centers, as early as the 1870's. Both cities showed signs of overwhelming any opposition from the other Canadian cities and towns in the banking field. Incidents occur at a surprisingly early date which illustrate the agglomeration advantages possessed by Montreal, and to a lesser degree, Toronto. These involved such things as access to greater quantities of information, and greater accessibility to the owners and administrators of firms with which close links were desirable. They were better able to serve a larger market. These advantages became particularly evident when economic slumps hit particular sectors or regions. As a rule, the more broadly-based financial institutions of the larger cities had greater resistance to these strains, owing largely to the broader sectoral and regional basis on which they conducted their business. Even without an extensive branch network, the institutions were better able to diversify their business and thus hedge against adversity. For example, when the speculative boom of the 1850's collapsed in the crises of 1857-59, the Montreal banks were less affected than those of Western Canada. The Bank of Montreal was able to balance its losses from the poor state of agriculture in Canada West and the speculative boom in land and railroads, with the benefits from the exceptional prosperity of the lumber trade, and its foreign exchange business. Banks in the smaller towns, unless they were able to acquire an extensive branch network, such as that of the Commercial Bank and the Bank of Ontario, were very susceptible to collapse if the local economy faltered. A broader base was excellent insurance against failure. This base could be acquired in the larger centers without branches; with branches the

insurance was increased.¹³⁶ Of course, this broader base did not constitute a total guarantee. Bad investment policies could sink any bank, as was illustrated by the failure of the Toronto based Bank of Upper Canada.

Another advantage the banks based in the larger centers possessed was in the matter of personnel. One of the more pressing problems, especially in the formation of new institutions was securing managerial talent. The larger cities provided a pool of the most competent financial management personnel in the country. The Hon. William McMaster and Mr. H. S. Strathy were the Toronto Director and Toronto Branch Manager of the Bank of Montreal when they resigned to help found the Canadian Bank of Commerce.¹³⁷ Austin, an early director of the Bank of Commerce, resigned from that bank only to be enticed to the newly emerging Dominion Bank, also located in Toronto. The

¹³⁶The role of branches in assisting banks based in smaller communities did not escape the Bank of Montreal. This was made clear in what has been termed "the battle of the Bank Act" in 1869. Sir John Rose, the Canadian Finance Minister, sought to establish a general banking act for the new Dominion. Under the influence of E. H. King, the General Manager of the Bank of Montreal, the government proposed, among other things, to do away with the system of branch banking and establish, as in the U.S., a system of small country banks. It was proposed to leave "...to the greater banks, in large measure, the care of the mercantile and foreign trade of the country and to the lesser, in their own districts, the care and support of local enterprise" (Roeliff Morton Breckenridge, "The History of Banking in Canada," *op. cit.*, p. 95). The elimination of the branch system would have left Montreal with the widest economic base. The fragmented banks in the country would have been forced by the need to rediscount bills, to rely on Montreal and to be highly susceptible to the effects of local business fluctuations. The proposals were defeated in large part because of a feverish lobbying effort on the part of Toronto and Halifax banks who were striving to escape from the shadow of the Bank of Montreal and Montreal in general.

¹³⁷Adam Shortt, "The History of Canadian Currency, Banking and Exchange," *J.C.B.A.*, Vol. 13, pp. 105-106.

cashier of the new Dominion Bank was previously the Toronto Manager of the Quebec Bank. The branches in the major Canadian cities of the Bank of British North America were long noted as a source from which soundly trained British Bank employees could be acquired. It was certainly possible to entice qualified personnel for a bank located in relatively small centers, but information as to their existence, and the qualities of the various individuals, was most easily acquired in either Montreal or Toronto.

It was also somewhat easier to raise capital in the larger centers. One obvious reason was that there were more funds in the hands of a larger investing class than would be found in a smaller community. This group not only invested to acquire a direct return on their investment but also in anticipation of a somewhat privileged position as a bank customer.¹³⁸ Given a desire on the part of investors to be in a position to be served by a bank in which they were investing and the usual inability of a new bank or other such institution to establish a broad branch or agency network, a larger center had distinct advantages in the initial acquisition of capital. There was a tendency to invest in the more familiar institutions which in early stages of banking in Canada meant nearby ones.¹³⁸ In a larger

¹³⁸This interest is well illustrated by the method in which the Royal Canadian Bank solicited capital prior to its opening in 1865. Stock was solicited and subscribed for in many different localities with the promise that a branch or agency would be opened in each of these places. These local stock-holders in many cases virtually determined the appointment of the agents in their respective towns (Adam Shortt, "The History of Canadian Currency, Banking and Exchange," op. cit., p. 191).

¹³⁹The distribution of the Bank of Montreal's shares (see Table 4-14), in part, displays a distance decay function (although

TABLE 4-14 The Distribution of the Bank of Montreal's Shares, 1870

Location	Number of shares	Number of share-holders	Location	Number of shares	Number of share-holders
Montreal	11,524	380	Remainder of Maritimes	88	7
Quebec City	2,984	123	Rupert's Land		
Sherbrooke	117	5	British Columbia and the H.B.C.	1,997	44
Other towns of Quebec	1,159	40	London	3,059	66
Rural Quebec	1,997	113	Rest of Great Britain	3,215	66
Eastern Ont.*	2,794	111	New York	88	4
Western Ont.	475	38	Rest of U.S.	365	13
Toronto	277	15	Shareholders possessing French Surnames**	372	25
Halifax	64	1			
St. John	56	4			

Total number of shares outstanding - 30,000

Nominal value of shares - \$200

* East of Yonge Street

** Included under location headings.

Compiled from: "Returns from the Several Banks of the Dominion of Canada," in Sessional Papers, Vol. 3, no. 3, papers 6-7 (1870). These tables give the names of the shareholders with the amount of stock held by them and their addresses.

city, sufficient funds could be secured to obviate the necessity of luring capital from more distant investors. A bank, or other financial institution located in a smaller community, would necessarily have to entice funds from a greater distance.

Potential depositors were also more plentiful in Montreal and Toronto than in lesser communities. It is hazardous to conclude that there were more large deposits (the only ones the banks would accept in the early years) per capita in the larger centers than the smaller ones, for in the cities a greater percentage of the savings may well have been absorbed in various forms of investment connected with the commerce and incipient industry of the city, or in urban real estate. However, if it is assumed that the per capita savings were no less in the larger commercial centers than in the smaller ones, just because of a larger population within a feasible distance from the bank, banks in the larger centers had an advantage.

Most of the major innovations in Canadian banking appear to have originated in Montreal or Toronto. One would expect this because most of the banks were located in these centers. But, it might also be explained by the fact that the environment of these centers was more conducive to problem awareness and innovation.¹⁴⁰ One would

the differential between eastern and western Ontario in part can be accounted for by the Bank of Montreal's acquisition of the Commercial Bank in 1867). The distribution of the banks' shares in 1870 reflect past conditions to a considerable degree, as is pointed out by the large holdings of stock by people connected with the Hudson's Bay Company. It is interesting to compare the holdings in Quebec and Toronto; Quebec's larger interest in the banking company probably reflects the early influence the bank had in the eastern city.

¹⁴⁰This statement would probably apply to the other financial intermediaries as well, but the historical record of innovations in

assume that knowledge of innovations would first be encountered in Montreal and to a lesser extent Toronto. The larger mass of these cities' financial, and business communities in general, provided a greater probability of an innovator's contacting an idea a sufficient number of times to prompt him to adopt the concept.¹⁴¹ Larger banks were better able to accept the considerable risk involved in implementing an innovation because of superior reserves of capital and public confidence. The largest banks were usually in Toronto and Montreal. It is impossible to quantify meaningfully the adoption of innovations or accurately isolate the reasons why one location should have first adopted an innovation. But, it is a fact such important innovations as the following were first adopted in Montreal. Savings banks first appeared in that city. The Merchant's Bank of Montreal was the first to pay interests on deposits. Building societies began in Montreal in 1819; trading on the New York money markets was initiated by the Bank of Montreal. Fire insurance was introduced into Canada in 1804 at Montreal (by the Phoenix Fire Office of London).

these other activities in Canada between 1821 and 1871 is too scanty to warrant any definite conclusions.

¹⁴¹Banking and to a lesser extent, the other components of a financial community are not good subjects for the study of the dispersion of innovations. The banks were restricted by their charters and the Bank Act from instituting innovations in many aspects of their business. Many innovations could only be adopted after a change in the Bank Act or their charter, something which usually occurred only decennially. By the time legal restrictions were removed, the idea would be familiar and possibly acceptable to all the banks. A somewhat similar limitation covered the insurance and other financial institutions (see Kenny, "History and Progress of Canadian Fire Insurance," in Hopkins, *op. cit.*, p. 313). As well, finance has been a field in which innovations hold many dangers. Financial institutions have been dependent upon confidence in their stability, and innovations which weaken this confidence could, and often did, cause their failure.

Life insurance was similarly first introduced into Canada at Montreal.¹⁴²

It may be difficult to measure exactly the extent of the advantages possessed by the larger financial communities, but there is no denying that they existed. The movement of the Bank of Ontario's headquarters at the end of the period is an excellent illustration of that existence. Shortt, in describing this event, stated: "As the business of the bank expanded, the management found increasing difficulty in conducting it successfully in such a small centre as Bowmanville, hence, notwithstanding the recent erection of a new head office, there arose in 1869, quite a strong demand for removal to any other place in Ontario or Quebec...." In 1874, "it was decided to remove to Toronto. In view of the expected increase in business, owing to the change, it was decided also to enlarge the capital by another \$500,000 making it \$3,000,000."¹⁴³ It would appear that these experienced bankers saw a head office location in Toronto's budding financial district as generating an increase in activity warranting a one-sixth expansion of the bank's capital.

In that it is impossible to calculate marginal cost and marginal productivity curves for an entire financial community, it is also impossible to establish exactly whether the relationship between

¹⁴²Report of the Royal Commission on Banking and Currency in Canada, op. cit., p. 29.

¹⁴³Adam Shortt, "The History of Canadian Currency, Banking and Exchange," op. cit., pp. 274-275. The fortunes of this bank actually declined after the move, but a before-and-after comparison of the business of the bank is relatively meaningless as the latter part of the 1870's was a period of recession, and a time of failure for several banks.

scale economies and the size of a financial community is linear or takes some other form. The performance of financial communities certainly indicates an upward trend to the relationship, even up to the size of present-day Wall Street. However, performance as a measure is somewhat masked by other factors, such as resistance impeding the spatial extension of the influence of a financial center over distance. In light of the difficulty in determining the relationship between size and efficiency, it is necessary to assume that the relationship is linear.

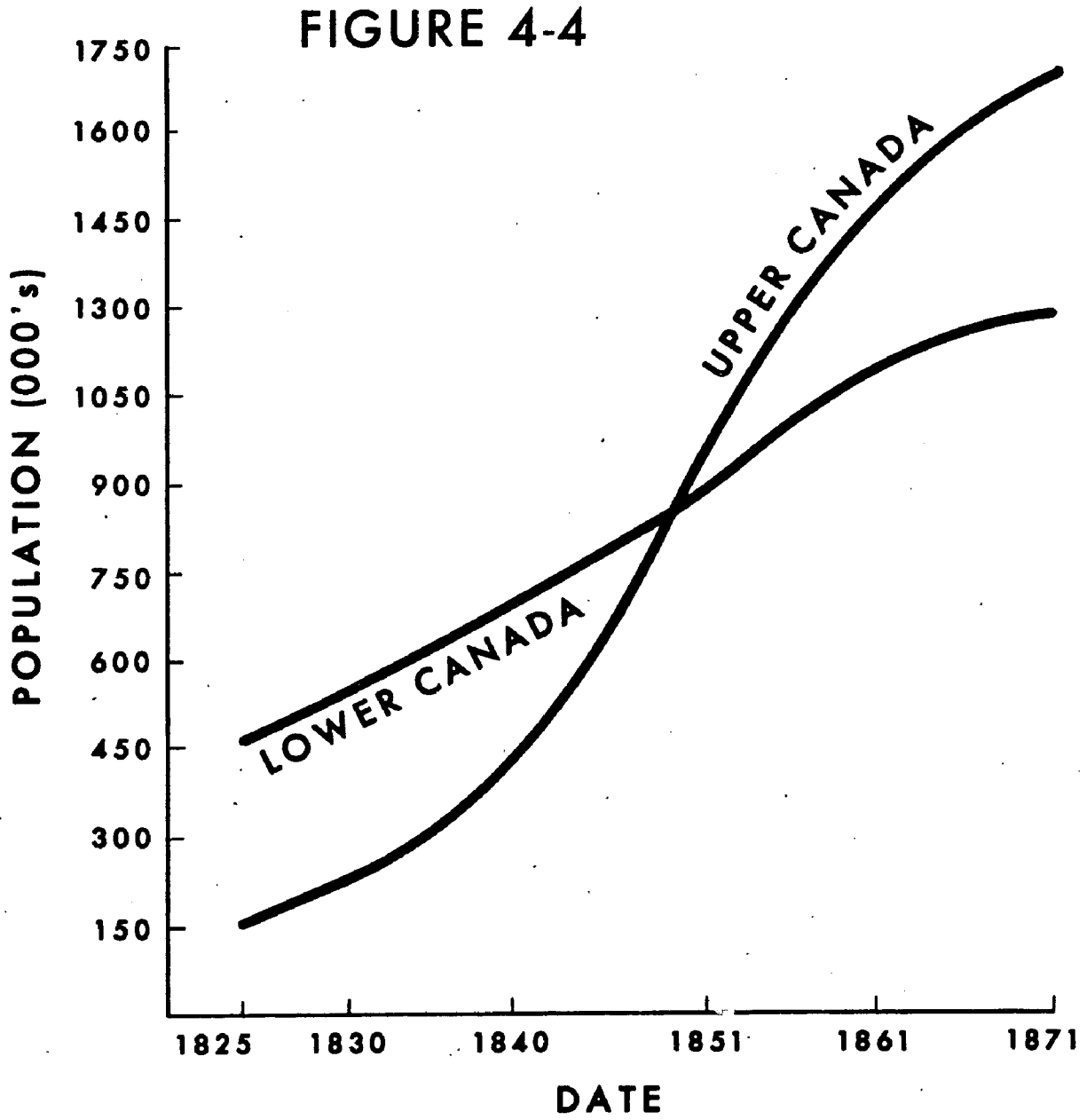
b. The Position of the Various Financial Communities
With Respect to Investment and Loan Opportunities

Financial communities could increase in size in relative isolation from each other, each increasing the external economies of its component units and each fulfilling new thresholds for more specialized activity. But, if the hinterlands of each financial community overlap, either partially or to the point where neither financial community has a distinct individual hinterland, then the financial community with the greater scale economies would expand both in the quantity and variety of services offered. The circular growth process of the larger community would impinge on that of the smaller one, resulting in a divergence of their growth rates. The independent decision-making authority of the larger financial community would be increased at the expense of the smaller one. If the two centers functioned in isolation from each other, the growth process of each would be a function of the need for financial services within the hinterland of the respective centers. In a state of isolation, threshold requirements would be lowered and specialized services carried out at low

volume or on a part-time basis by already existing units within the financial community. Between 1821 and 1871, the relationship between the financial communities of Montreal and the other Canadian cities passed from a situation where isolation and relatively distinct hinterlands were characteristic to one in which two centers were dominant, and both were providing services and exercising decision-making authority over a similar territory. They evolved from a situation in which the distance and other barriers exercised considerable influence, to one in which the circular growth process was influenced to a considerable extent by the growth process taking place in the other financial community. The following paragraphs examine the ability of Montreal's financial community to exert its influence on the others and place them in a subsidiary position. It involves an assessment of the various cities' ability to provide financial services to the population of Canada, which in turn is a function of the relative sizes and agglomeration economies of the centers, the distribution of the market for financial services, and the links between the financial centers and the market.

A comprehensive tracing of the shifting distribution of demand for the services of financial intermediaries is beyond the scope of this thesis. But, a general picture of the distribution can be drawn. In 1821, the settled areas in Canada consisted of the French-Canadian riverine settlements along the St. Lawrence, the Chaudière, St. Jean, and Richilieu and a linear strip along the St. Lawrence and Lake Ontario, formed by the coalescing of the early loyalist settlements, and outposts near Sandwich and the Upper Thames in the Talbot settlement, and near Perth and Bytown in eastern Upper Canada. In a

sequence familiar to most North American pioneer areas, the original settlements increased their capital accumulation and sent their offspring and dissatisfied to join the immigrant population on progressively more remote concessions. This lasted until the 1850's when the supply of fertile land was exhausted and only the rocky knobs and "moose pasture" bordering the government sponsored pioneering roads remained. Upper Canada exceeded Lower Canada in population growth, the population of the more recently settled area increasing over 400 per cent between 1825 and 1850, and Lower Canada by a little over 75 per cent (see Figure 4-4). By 1852, Upper Canada's population exceeded that of Lower Canada. Manufacturing did not bulk large in the economy of Canada during the period. (In 1867, over 80 per cent of the population was engaged in agriculture) and was dispersed, typically, dealing with the processing of raw materials and often located at water-power sites (see Table 4-15). Besides agriculture, the other basic staple of the economy was lumbering, and as has been pointed out earlier, it was ephemeral and scattered along the edge of the Canadian Shield, focusing on the Ottawa and its tributaries. Unlike these scattered activities, commerce was concentrated in the towns which formed nodes on the import-export system leading to Britain and the U.S., and with few exceptions evolved from transfer points on the early waterway. Railways, as far as their dealings with finances were concerned, were located in the larger established towns. It was a common observation among the writers of the time to comment on the reluctance of the French-Canadian rural population to enter into the commercial economy. Most of the saving and expressed demand for surplus funds were from the English speaking element in



**POPULATION OF
UPPER AND LOWER CANADA
1825-1871**

TABLE 4-15 The Distribution of Manufacturing Among the Cities and Regions of Canada, by Number of Establishments, 1851

Selected Mills and Factories	- cities and areas -									
	Montreal	Quebec	Toronto	Kingston	Hamilton	Bytown	London	Canada East	Canada West	Canada
Grist Mill	2	-	3	-	-	3	3	541	612	1153
Saw Mill	-	-	3	-	-	12	37	1065	1150	2215
Carding and Fulling Mill	-	-	-	-	-	-	-	193	147	330
Woolens	-	-	-	-	-	-	-	15	74	89
Distillery	2	-	3	1	-	1	-	7	100	107
Harness	-	-	-	1	-	-	1	-	-	-
Tanneries	8	33	1	1	1	5	4	204	223	207
Foundaries	7	3	5	2	2	2	3	38	94	132
Breweries	5	2	1	1	4	1	1	13	49	62
Asheries	-	-	-	2	1	1	-	186	51	237
Pail	-	-	-	-	-	-	1	6	14	20
Turning Lathe Mill	-	-	-	-	-	-	-	1	17	18
Oil Mill	6	-	1	-	-	-	-	7	4	11
Cabinet	-	-	1	2	1	1	5	-	27	28
Oatmeal	-	-	-	-	-	-	-	8	45	53
Potteries	-	-	-	-	-	-	-	8	7	15
Glass	-	-	-	-	-	-	-	2	-	2
Paper Mills	-	-	-	-	-	1	-	5	5	10
Planing Mill	2	1	2	2	3	-	1	4	19	23
Steam engines	-	-	1	2	-	-	-	3	-	3
Last Factory	-	-	-	-	-	-	-	1	5	6
Starch	-	-	-	-	-	-	-	2	-	2
Rope	1	-	-	-	3	-	-	3	5	8
Threshing Mill	2	-	1	-	-	-	-	3	1	4
Axe	1	-	2	-	-	-	-	6	5	11
Plaster Mill	1	-	-	-	-	-	-	2	8	10
Chair	1	-	1	-	1	-	1	3	6	9
Nail	1	-	-	-	-	-	-	4	-	4
Cider Mill	-	-	-	-	-	-	-	5	3	8
Ship Yard	-	9	2	1	-	-	-	12	8	20
Agricultural Imp.*?	-	?	-	-	1	-	-	-	1	1
Rake Factory	-	-	1	-	-	-	-	1	-	1
Hatteries	2	1	-	-	-	-	-	3	-	3
Stave Mills	-	-	1	-	-	-	-	1	2	4
Cigar*	?	?	-	-	3	-	-	?	4	?
Rifle Factory	-	-	1	-	-	-	2	-	2	2
Carriage*	?	?	4	2	6	5	4	?	45	?
Brick Yard*	?	?	-	-	1	-	-	?	10	?
Sheet Metal*	?	?	2	1	3	-	1	?	7	?
Lime Kiln*	?	?	4	-	-	-	-	?	4	?

*Data for Canada East not available.

Source: Census of the Canadas, 1851-52, Vol. 2, General Abstract of Return of Mills, Manufacturers, etc., Upper and Lower Canada.

Quebec City, Montreal, the Eastern Townships, and Canada West. The French-Canadian agricultural society retreated to a position not greatly different from a Robinson Crusoe economy, where the saver is also the investor, and capital mobilization presents little problem. The more complex the economy, the more difficult it is to transfer the use of resources gained from non-consumption by the savers, to those who wish to use them. Complexity and the need for financial intermediaries was characteristic of Quebec City, Montreal, and the more established areas of Upper Canada.

In general, the market potential for financial services increased at a much more rapid rate in the western portion of Canada between 1821 and 1871. This more rapid growth of the market for financial services in Canada West placed Toronto and the other cities of the western portion of the province in closer proximity to the consumer. However, as will be shown in the following paragraphs, this factor, as an explanation of the differential growth of financial communities and the location of higher level decision-making in the financial industry, is overshadowed by other agents.

A most important factor, affecting the growth processes of two or more financial communities, is the state of communications and the degree to which the services provided by the financial intermediaries can be projected over distance. There are several types of information which need to be communicated in order for the financial intermediaries to conduct business over distance. The first is that the potential creditor be informed of the services which are rendered by an institution. A considerable amount of information is usually required to overcome the natural hesitancy to entrust funds to an

unfamiliar institution. The second type of information is that which will reduce the uncertainty connected with investment of funds by the financial intermediaries.¹⁴⁴ If such information cannot be transmitted to a given financial community, to an extent necessary for the making of a satisfactory decision, then a closer financial community will be in a position to more efficiently act as an intermediary in the mobilization of funds. Closely related to this type of information movement is a flow to the promoters, of an investment opportunity, of information on the existence and services available in a given financial community. Also, a prerequisite for a financial institution to operate over distance is the ability to move funds. This is partly a communications problem (where transfers are made by ledger entries) and partly a transportation problem (where the movement of cheques, securities and currency is involved). Anything which creates resistance to the flow of information and funds, either for a system of financial communities as a whole or for one individually, alters the distribution of financial activity. Not only would a given level of friction within the system affect the distribution during the period in which it existed, but also, because of its effects on the growth process of individual financial communities, would have repercussions for an indefinite time thereafter. The friction resisting the flow

¹⁴⁴Information regarding investments is probably more important to the financial intermediary than the transmission of information to potential creditors. For example, if a bank makes ten loans of \$1,000 each at 10 per cent, it only takes one failure to produce a \$100 loss on the ten loans. The immediate cause of failure of most financial institutions can usually be traced to unwise investment policies. The Commercial Bank of Canada, for example, was very successful in attracting capital and deposits, yet it failed because of serious errors in investing its funds.

of information and funds has been of several varieties. The most obvious involves the difficulty of transferring information because of poor physical communications. Here the transfer of the necessary quantities of information sufficiently quickly limits the ability of an intermediary to provide its service. This could be general in the system or affecting the ability of one financial community to serve a particular area. Obstacles in the way of a financial community's serving an area could be of a sociological or political nature as well. Civic pride, and its negative form--urban rivalry, urban-rural animosities, ethnic prejudices, political barriers, and governmental preferences--all could stand in the way of a free flow of information and funds to and from a financial community.

The physical state of transportation and communications facilities was a controlling factor in the ability to extend the services of financial communities over distance. Speed and, to a greater extent, regularity in communications were important for the operation of the financial system. Delays in learning of runs on bank branches or information on problems in various organizations whose securities, financial intermediaries held, and other such information could not be delayed without incurring sometimes serious risks. Most commercial transactions could be postponed until the ice went out, and immigrants usually only had to make their long journey once. But, even in the first half of the nineteenth century, some financial information, by its own character, constituted "knowledge in a hurry."

The diary of William Graves records a trip he took from Montreal to York, a trip which is illustrative of the means of transportation between the two centers until the canalization of the

St. Lawrence and the coming of the railways.¹⁴⁵ On the 6th of July, he departed by mail stage to the Ottawa River where some time was consumed crossing by bateau. A stage was then taken to Lake St. Francis on the St. Lawrence where a mail bateau was boarded for a trip to Prescott. A steamboat carried him from Prescott to Kingston, where he arrived on the night of July 8th. The trip from Kingston to York was by boat and took 40 hours. This was the most expensive and fastest way; the most customary method of travel from "La Chine" to Kingston was by Durham boats or bateau and took no less than ten to twelve days. In 1819, the steam packet only proceeded from Kingston to York once a week.¹⁴⁶ After the close of navigation, the only means of transportation between Montreal and Toronto in the early 1850's was by mail stage. Shovels had to be carried by the passengers to allow them to dig the stage out of drifts. Even commercial travellers were scarce prior to the railroad. A Mr. Taylor, one of the early wholesale travellers, recounted that in the fall of 1851 not a single commercial traveller was met on his travels. The following year, he only encountered two or three, one of them out of New York and two out of Montreal. Possibly, they were deterred by the need to cross frozen rivers and canals in heavily loaded stages where the horses had to "jump the cracks."¹⁴⁷ Shortly after the railroads arrived, these

¹⁴⁵ Donald F. McQuat, "The Diary of William Graves, The Record of a Visit to Canada in 1820," Ontario History, Vol. 18, no. 1 (1951), pp. 1-28. Also, see the Montreal Gazette, May 3, 1832 and June 18, 1833, for a description of the transportation facilities between Montreal and Upper Canada (reproduced in Innis and Lower, op. cit., pp. 144-146).

¹⁴⁶ Innis and Lower, op. cit., pp. 141-143.

¹⁴⁷ Edwin C. Guillet, Toronto from Trading Post to Great City (Toronto: The Ontario Publishing Co. Ltd., 1934), pp. 242-243.

numbers increased to the point where they established the Commercial Travellers Association.

Winter, of course, forced the delivery of mail onto land-based transportation which as late as 1809 consisted of "a pedestrian courier named Anderson" for the route between Montreal and Kingston and "an Indian" (unnamed) between Kingston and Toronto! In the 1820's, a letter posted in England in November seldom arrived in York by the following spring. By the 1840's, it still took two to three months. William IV died on June 20th, 1837, but it was August before the news reached Upper Canada. In 1824, three days was the usual time taken to transfer mail from Niagara to York. By 1850, "To send a letter from Toronto to Montreal and receive a reply to it took from two to three weeks; while even as late as 1853, the time occupied in conveying a letter in winter, from Quebec to any post office in Canada West beyond Toronto, was from eight to eleven days."¹⁴⁸ It was not until 1842 that daily mail stages ran from the eastern boundary of Upper Canada to the Detroit River. Even so, the stage seldom arrived as scheduled, because of the poor roads. Even at mid-century, the mail north of Newmarket on Yonge Street was given "to the first reliable settler who came along."¹⁴⁹ Not uncommonly, letters were opened and read before reaching their destination. Occasionally, attempts were made to rob the mails, and postal rates were notoriously high during the first

¹⁴⁸ Edwin C. Guillet, Pioneer Travel in Upper Canada. (Toronto: University of Toronto Press, 1966), p. 236. This book consists of Section 4 of Early Life in Upper Canada, published in 1933.

¹⁴⁹ Ibid., p. 237.

half century (although demand was income elastic and the costs of limited importance to the financial community). The problems of transferrring funds between Upper and Lower Canada, and the lack of integration of the financial system were aptly pointed out at the time in evidence before the Select Committee on Banking and Currency in 1841.¹⁵⁰ A consistent theme throughout the evidence is the exorbitant cost of transferring funds and the different exchange rates on money, between Upper and Lower Canada, a phenomenon which points out the lack of integration of the Canadian economy and a failure of the transfer mechanism.

The Grand Truck Railroad commenced operations between Montreal and Toronto in October 1856 and almost immediately supplanted the stage and the steamboat. A letter which had taken ten and a half days to travel from Quebec to Windsor in 1853 took only 49 hours in 1857, and this rate improved in the following decades.¹⁵¹ However, before this improvement, the telegraph had made it possible to transfer information almost instantaneously, at least in comparison to the postal service. In 1847, less than three years after the initial line in the U.S., the first telegraph line was opened in Canada. This line around the head of Lake Ontario was soon followed by a line from Quebec City to Toronto, built by the Montreal Telegraph Company. By the end of 1847, this company had 540 miles of wire and had sent

¹⁵⁰"First Report of Select Committee on Banking and Currency," Evidence in Journals of the Legislative Assembly of Canada, Vol. 1, Appendix O.

¹⁵¹William Smith, "The Post Office, 1840-1867," in Shortt and Doughty, op. cit., p. 366.

33,000 messages.¹⁵² In 1852, the Grand Trunk Telegraph Co. built a line between Buffalo and Quebec. In 1864, there were 3,871 miles of telegraph line in the country, serving 288 stations with 328 instruments and transmitting 416,117 messages.¹⁵³ The advent of the large Dominion Telegraph Company and a rate war with the Montreal Company resulted in excellent service at reduced rates until a monopolistic merger of the two companies in 1881.

Besides the physical condition of the communications facilities as an influence on the extent and organization of the financial system, there were other less tangible influences, which might be summarized as parochial sentiments. Present in Canada at this time were urban rivalries between Montreal and Toronto, urban-rural conflict, and also the rivalry of two states which were quasi-separate in fact (if not in name) between 1841 and 1867. It would be impossible to quantify the costs people were willing to absorb at various times in favoring a set of local financial services over a superior non-local set. They were probably not great among the general population, but would undoubtedly tip the balance where equal services were provided at a point by two institutions, one local and one more distant. Where governments are involved, there is evidence that they were prepared to absorb considerable costs in support of local financial institutions. Evidence of parochialism are found in such statements as the following written by a Kingston correspondent in 1836. After

¹⁵²Charles Prentice Dwight, "History of Canadian Telegraphy," in J. Castell Hopkins, op. cit., p. 530.

¹⁵³Province of Canada, Sessional Papers, Vol. 24, no. 3 (1865), Table 15.

advocating the diversion of Upper Canada's trade through New York, he stated that such a diversion of trade "would doubtless affect Montreal, inasmuch as many of the principal houses in that city, which are now dependent upon us for support, would be transplanted to the principal towns in this Province....Is it not naturally due to this Province that those who receive the chief benefit of its trade should reside here, and should feel some interest in, and contribute to the prosperity of the country?"¹⁵⁴ The case of the Bank of Upper Canada provides an example of the government supporting an institution because it was the core of the financial and commercial interests of a particular city. The bank was the creation of the government of Upper Canada. It maintained its very large account with the bank until the Union of the Canada's in 1841. The new government also gave the bank its account until 1864. In this way, the government gave the bank prestige. Through the political process, it provided a foundation which its chief rival, the Bank of Montreal, did not enjoy, at least in the early years and did not need in any event. The Bank of Upper Canada, in many ways, was very poorly run. It paid high rates of dividends which it could ill afford and "its management was often blind, reckless and ignorant."¹⁵⁵ Yet, despite this, the bank was pre-eminent among the financial institutions of Toronto during its lifetime and its prominence could, in part, be attributed to governmental support. Up to the mid-1830's, the Legislative Council

¹⁵⁴Quoted in the Montreal Gazette, January 26, 1836. In his hatred of Montreal, it apparently did not occur to the correspondent that dominance by Montreal houses might be replaced by that of New York ones.

¹⁵⁵Breckenridge, "The Canadian Banking System, 1817-1890," op. cit., p. 291.

ruthlessly killed any bill proposing the establishment of a competitor. It was invested with the dignity of a government institution. "Its credit was always high and its 'green notes' held in high esteem."¹⁵⁶ This bank, for over 40 years, provided a framework around which the financial community of York could grow. The protection of this institution in effect acted as a partial barrier to the penetration of the Montreal banks into the banking business of Upper Canada.

Of course, the friction of space is only relevant to the geographic expansion of the business of a financial community where the units of the financial community are desirous of such expansion. In some instances, this is not the case. By the 1870's, the Bank of Montreal which was pre-eminent in the Montreal financial community, had extended its business widely throughout Canada, to London, and in the United States, in particular to New York. With the failure of its two main rivals in Canada West, the Commercial Bank and the Bank of Upper Canada, the Bank of Montreal was in an excellent position to overwhelm Toronto completely as an independent banking and financial center. However, instead of pursuing its advantage, the Bank of Montreal opted to retreat and deliberately abandoned much of its business in Canada West. There was a slump in the agricultural economy of Canada West during this period and opportunities for quick profits in dealings on the New York gold and exchange markets and by placing funds into the call money market through its New York branch. As a result, the Bank of Montreal withdrew most of its funds from the

¹⁵⁶Ibid., p. 292.

regular Canadian markets. In Canada, the Bank of Montreal was most able to pursue such a course. In the short run, it proved very profitable, but it left the door open for several new banks to arise in Toronto to take over the Bank of Upper Canada's old position and to fill the void left by the Bank of Montreal's temporary departure. In the long run, when the regular business of Western Canada revived, the Toronto banks had acquired a loyal following, and as a group, proved strong competitors to the Montreal-based banks. It was one case where the scale and wide ranging contacts proved somewhat of a disadvantage, and as a long-run policy, the temporary withdrawal from the Canadian market could be considered a tactical error of the first order on the part of the Bank of Montreal. Such withdrawal was possible where there was little chance of competition, either from local sources or from other banks in Montreal. But, Toronto had by this time established traditions and the potential to step into the breach. It occurred quite frequently that a group or region, neglected by the various established institutions, would establish its own organization.¹⁵⁷ However, these rarely lasted very long when the larger institutions entered or re-entered the field. But, in the case of Toronto, the institutions which arose during this period had sufficient advantages to become permanent features in a healthy Toronto financial community and to compete with both the Bank of Montreal and the Montreal financial community in general.

A further example of the reluctance of a financial institution

¹⁵⁷For example, the several farmers' banks such as the Farmers' Joint Stock Banking Co., the savings banks, and the building societies.

to extend its business spatially occurred in the 1820's. There is evidence that, at this time, the Bank of Montreal discouraged the discounting of bills in Quebec City. The interests of the banks and the Montreal merchants who dominated the bank were very closely connected. The capital and deposits from Quebec were consciously only partly returned to that city in the form of loans.¹⁵⁸ Furthermore, the merchants of Quebec alleged that the Bank of Montreal refused to redeem its own notes at Quebec unless they were stamped "payable at Quebec."¹⁵⁹ These policies were, of course, shortsighted and provided its competition, the Quebec Bank, with opportunities which it might not otherwise have had. By the mid-1830's, the Bank of Montreal was operating more in the interests of the bank rather than the Montreal merchants, and it became a more formidable competitor in Quebec.¹⁶⁰

c. The Organizational Response of the Canadian Financial System to the Conditions in Canada, 1821-71

No account, as yet, has been taken of the organizational response within the system, to the problem of providing financial services over distance. Highly simplified, within a system of financial communities, it becomes a problem of centralizing or decentralizing decision-making authority--of playing off the advantages of

¹⁵⁸Shortt, "The Early History of Canadian Banking," op. cit., pp. 359-360.

¹⁵⁹Breckenridge, "The Canadian Banking System, 1817-1890," op. cit., p. 129.

¹⁶⁰This may have been partly responsible for the severe shifts in the banking assets of the two cities in favor of Montreal between 1831 and 1841.

having decision-making power allocated to a location possessing agglomeration- and urban-economies and, most importantly, information in the greatest concentration, against a decentralized structure where these advantages are fewer but less movement of information is required. In such a system, the growth process of each individual financial community is affected by the relative sizes of each center at a given time and the limitations placed on the extension of its service through the friction of space and other restrictions.

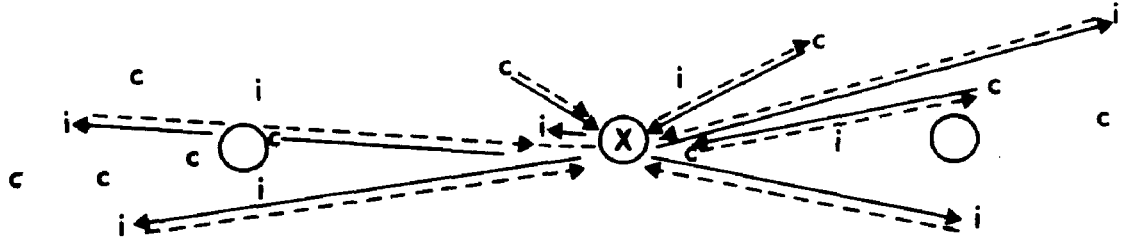
In Figure 4-5 are presented four simple, organizational alternatives for the geographic expression of the transfer mechanism within Canada between 1821 and 1871. They are highly simplified and, of course, reality would be found in composites of these figures. But, they should help clarify the following interpretation of the spatial growth process within the Canadian financial system.

One possible transfer mechanism, involving financial intermediaries, is that pictured in Diagram 1. Here, there is one financial community serving the entire population. The flows necessary for the operation of financial intermediaries are all centered on one location. Information about the financial services available is diffused to the population. Funds are forwarded to the intermediaries. Information of the existence of an investment opportunity, and information from various other sources which are necessary to assess the worth of that investment are transmitted to the financial community. Finally, funds are forwarded to the intermediary. In this sort of centralized system, no secondary intermediaries (branches, agencies) are required between the customer and the financial intermediary and the flows needed for the successful operation of the financial

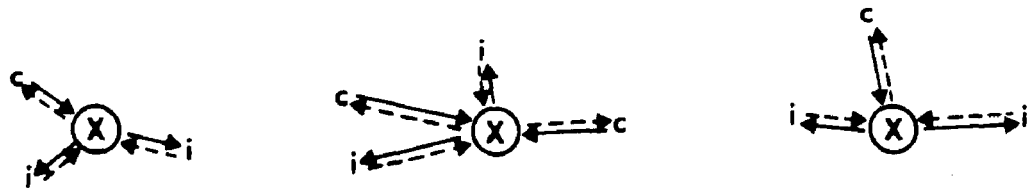
FIGURE 4-5

Some Alternative Spatial Organizations of Decision Making Authority in the Servicing of the Movement of Funds Within Canada 1821-1871.

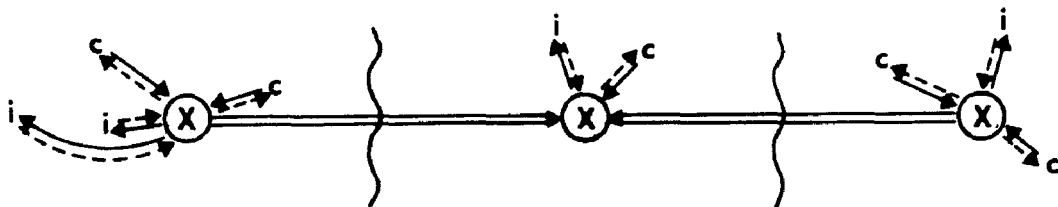
No. 1 Total centralization



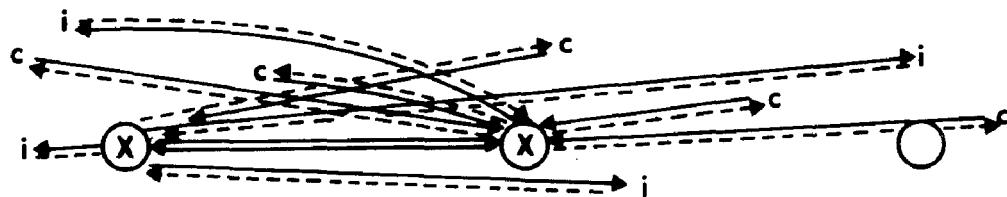
No. 2 Total separation



No. 3 Branches and agencies



No. 4 Equality in concentration



LEGEND

- c creditor or potential creditor
- i investment opportunity
- financial community or potential community
- X center of information processing



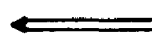
resistance to the flow of information.



flow of unprocessed information



flow of capital



flow of processed information.

intermediary are necessarily long.

At the opposite extreme lies a mechanism composed of totally independent financial intermediaries. The levels of decision-making power are equal. In effect, there are three systems, closed to each other but working in juxtaposition, each growing and declining with the need for financial services within its territory. Each of the three independent financial systems is linked to external financial centers through its own financial community, independently of the other two centers.

Another alternative is that of Diagram 3. Here, one center has a significantly greater set of economies than the other two centers and has adopted the mechanism of allocating a portion of its decision-making authority to the other two centers. Through branches or agencies (in fact, if not formally), the necessary information and funds flow to the subsidiary centers and are partially processed there, thereby reducing the quantity of information which would be required if Diagram 1 characterized the flow. In this case, the centralization of the financial structure taken as a whole, would not be as great as in the first diagram. Those functions in the lesser community would be most typically "street functions" and activities where a great deal of information is required but the return from this information would not warrant long-range transmission in an environment of some friction of space. A group of branches and agencies could provide a basis for the acquisition of an independent financial community; a city with such a group would be in a better position to do so than a city that was without them. However, it is doubtful that a newly established financial function could compete

with similar functional units in the more efficient atmosphere of the larger community. If the advantages of an agency's or branch's connection with an institution in a larger financial center are greater than that possessed by an independent financial operation, there would be little chance of the smaller center's obtaining an independent higher level of decision-making authority.¹⁶¹

The fourth diagram is quite different from the previous three and is typical of financial locations, especially in the modern era. Here, the given space is served from two (or more) locations equally. The friction of space has been removed. This has become a realistic assumption for many high-value financial transactions involving great responsibility on the part of decision-makers. Each center may provide the service directly or through branches and each maintains contact individually with the outside financial world.

An explanation of the distribution of financial intermediaries in Canada by 1871 is more complex than can be shown by these simplistic static models, the distribution being the result of a particular evolutionary process. The following paragraphs will attempt to

¹⁶¹These first three diagrams do not differ, in essence, from what one could obtain by taking small segments of a central-place system (see Walter Christaller, Central Places in Southern Germany, Englewood Cliffs, Prentice-Hall, 1966). This could be misleading, however, for unlike the central-place explanation, which is static in its rationale, an explanation of the distribution of finance, of necessity, needs to be dynamic. The significance of the advantages of clustering of various financial functions is much greater than that for retailing outlets. The advantages of a large retailing grouping in the central business district are relatively easily compensated for by the facilities in other areas of the city. Advantages of clustering in finance are sufficiently great that replication is not easily accomplished. In financial location, the distribution is vitally dependent upon the pre-existing structure. Here, the explanation lies in the growth process, not in static, geometric relationships.

integrate the various factors which have been presented and to present a hypothesis about the process by which two relatively independent financial centers arose in Canada prior to the 1870's.

In skeletal form, the spatial dynamics of the financial system can be interpreted as follows. In the early part of the nineteenth century, finance was closely allied to the activities of commerce. The mercantile credit system was incorporated within the merchant houses. A chain of credits extended from the frontiers of settlement, and beyond in the case of the fur trade. The financial ties were dendritic in their plan, with Montreal and Quebec City lying astride the upper trunk and Britain at the base. Communications problems were great, and the merchants along the system functioned as agents. Credit flowed through the system on the basis of confidence but considerable risks were taken and the costs were occasionally high for the creditors. The pattern possessed elements of both Diagram 1 and Diagram 3 in Figure 4-5. Largely because of communications problems and the risks encountered in this very long-range credit chain, the supply both from across the Atlantic and from Montreal and Quebec inland proved insufficient. The quantity of information which needed to be transferred made this system more costly than the one where local financial institutions in Canada mobilized funds locally. Also, because these local financial institutions possessed more prestige than the individual merchants who pooled their funds to form them, they were able to mobilize funds from overseas at more reasonable rates.

In the 1820's, banks arose in Quebec, Montreal, and Toronto. Montreal, because of her commercial supremacy and the close ties

between commerce and banking in the early years, had the largest banking establishment. York, the capital of Upper Canada, possessed a bank which had assets much beyond those to be expected on the basis of the town's commercial activity and population. This phenomenon was partly due to governmental backing of the bank. No city, including Montreal, possessed sufficient cost advantages in processing information and moving funds to overcome the resistance to a major projection of its financial activities into the market area of Toronto and end Toronto's ability to make major independent financial decisions (because of the considerable friction of space, it was still realistic to speak of hinterlands).

The major capital movements into the country, especially in the 1850's, provided relatively little benefit to Montreal financial intermediaries in comparison with what happened in the United States. In effect, the pattern presented in Diagram 2 typified the relationship of Toronto and Montreal with respect to their financial activity. Montreal became the locale for branches of British insurance companies but the advantages of their location and prestige and often powerful financial backing were insufficient to prevent the establishment of domestic competitors, almost all of them in Upper Canada. The market for funds for building and for farm finance was unsatisfied by Montreal and Toronto came to dominate the field. The shift westward of the market for financial services also assisted Toronto's financial growth by accentuating the total distance Montreal had to overcome to serve the market--a significant factor at least up to mid-century. The relationship between Montreal and Quebec, on the other hand, took another turn. Despite the fact that Quebec was the second largest

city in Canada, both in terms of total population and those engaged in commercial activity, Montreal had such advantages in the financial field that it was able to overcome the resistance to the projection of its services to Quebec. With roughly half the distance, the Lower St. Lawrence, superior roads, and the same governmental jurisdiction, this resistance was considerably less than between Montreal and Toronto. The relationship between the two cities took on the character of Diagram 3. The Quebec City branches and agencies of Montreal institutions had advantages which were equal or superior to those of Quebec's existing or potential institutions. Thus, the growth spiral of Quebec's financial activity was retarded. By 1871, most financial functions were represented in Quebec by only "street offices." Generally, it might be said that a given mass of financial activity being undertaken by branches in a city does not fulfill a threshold for a higher level financial activity that the same quantity of activity being undertaken by a group of local independent financial intermediaries (working in relative isolation) does. In all probability, the threshold would have been reached previously on the basis of a broader market and the new higher level activity established at head office, where it would remain because of agglomeration economies and inertia.

At mid-century, communications improved very markedly and there was little to impede the spatial expansion of Montreal's financial community throughout Canada. By the late 1860's, the supposed machinations of the Bank of Montreal in Canada West became a topic of popular conversation. The oft-quoted "battle of the bank act" represented a climax of sorts in that bank's (and the Montreal financial

community in general) probably unconscious attempts to squeeze out its Toronto-based competition. This failed. Toronto's financial community had by the end of the 1870's acquired a body of experience, an information gathering system, and a loyal clientele which, with the important political support of Canada West, permitted its financial functions to compete with Montreal from its Toronto base. The system had evolved in its essential features into a condition typified by the final diagram in Figure 4-5. Spatial competition for most functions whose activities involved limited uncertainty (and therefore relatively low levels of uncertainty reducing information) was based on the level of service and this level was less dependent upon the friction of space than on the efficiency with which a particular financial function could be performed in each of the financial communities. This is not to say that the various financial functions were performed in a totally frictionless space, but that space's influence was greatly diminished by the 1870's and that the competitive position of the financial communities was more a reflection of their initial advantages than of relative proximity to those requiring financial services.

6. Concluding Remarks

It has commonly been assumed that a relatively small financial center would evolve in the natural course of events to a position where it could rival, in the extent of its decision-making authority, a much larger one, given an equal economic base for the city in which the respective financial communities were domiciled. Toronto is taken as a classic example of this normal process, as outlined by Gras and

by Innis, Masters, and Kerr.¹⁶² There can be little argument that Toronto was indeed a serious rival of Montreal with respect to the independence and quantity of Toronto's financial decision-making power. Its banking insurance, trust, and savings organizations, on the whole, functioned without need for the services of the Montreal financial community. The position which Toronto gained by the mid-1870's, while superficially fulfilling the Grasian scheme, was the product not of a normal and inevitable process, but rather a function of several particular conditions. One is the fact that both Montreal and Toronto acquired financial institutions at an early date. Montreal, in fact, had a rival in Toronto, in the field of banking as early as 1831, despite the considerable difference in the size of their populations. This was partly due to the extensive support by the government of Upper Canada of the Bank of Upper Canada in the 1820's and 1830's, giving Toronto a financial institution of greater size than the town would otherwise have acquired. Without this support, Toronto may have been in little better position than Quebec or Kingston when eventually exposed to the power of Montreal's institutions. At a relatively early date, Toronto gained a greater mass of financial activity than Quebec, despite the greater population and larger amount of commercial activity taking place in the latter city. Another particular circumstance which enabled Toronto to rival

¹⁶²See H. A. Innis, "Toronto and the Toronto Board of Trade," The Commerce Journal, Annual Review, March 1939, pp. 19-24; D. C. Masters, "Toronto vs. Montreal: The Struggle for Financial Hegemony, 1860-1873," Canadian Historical Review, Vol. 22, no. 2 (June 1941), pp. 133-146; and Donald Kerr and Jacob Spelt, The Changing Face of Toronto, Memoir II, Geographical Branch, Department of Mines and Technical Surveys (Ottawa: Queen's Printer, 1965), pp. 77-79.

Montreal, was the physical and psychological resistance between Montreal and York which prevented the exercising over distance of those advantages which Montreal possessed. Montreal's financial community did not realize scale economies of sufficient size, relative to Toronto's, to overcome the friction in the way of a complete domination of the higher-level decision-making power in Canada. In a circular and cumulative fashion, Montreal's inability to acquire much of the decision-making connected with the transfer of funds from Britain accentuated its lack of stature vis-à-vis Toronto. On the other hand, the Montreal financial community's relatively small size and lack of penetration into the Canadian market for financial services provided little incentive for London-based institutions to allocate decision-making authority to institutions and branches in the Canadian city. If Montreal's financial structure had been more firmly established when Toronto arose as a city; if Montreal had benefitted to a greater extent from a more extensive overseas capital inflow; if Montreal's commercial fortunes had not waned during the 1840's; if Toronto had not been protected by the parochial political power of Canada West; and if communications between Montreal and western Upper Canada had been better in the early part of the century, then St. James Street may well have caused Bay Street to languish as the side street it once was.

CHAPTER V

THE SPATIAL RELATIONSHIP OF THE FINANCIAL COMMUNITIES OF MONTREAL AND TORONTO TO THE CANADIAN ECONOMY, 1871-1961

Introduction

Between 1867 and 1871, the Canadian nation geographically ballooned to roughly its present size. Encompassed was land soon to be exploited to feed the industrial demands of Europe and the Eastern United States. Coal, gold, and other base metals were found in Nova Scotia; later a bonanza was initiated at Cobalt, the C.P.R. roadcut near Sudbury exposed an immense basin of complex nickle ore, Porcupine and Larder Lake fed sizeable quantities of gold into the world's monitary system. A propitious market for wheat, around the turn of the century, and other favorable circumstances enabled the prairies of Manitoba and the Northwest Territories to be rapidly opened. These developments resulted in an explosive expansion in the spatial demand for financial services. As well, it was not a zero-sum game; the great investment in the new areas increased the demands for manufactured products and services from the older areas of Quebec and Ontario and compensated for the migration of capital, labor, and displacements in eastern agriculture.¹

The purpose of the present chapter is to examine the effects

¹James S. Duesenberry, "Some Aspects of the Theory of Economic Development," Explorations in Entrepreneurial History, Vol. 3, no. 2 (Dec. 1950), pp. 96-102.

on the location of various financial functions, and the financial communities in which they are frequently performed, of this new economic environment. Fundamentally, the chapter seeks to examine the manner in which the financial intermediaries of Montreal and Toronto were able to extend their services to the areas of new investment, in competition with more locally based centers. Thus, this chapter is an examination of a third case of the relation of an established financial community to a developing frontier area, but in this case in a more developed communications environment. Again, of central concern is the nature of the internal communications system of the financial community and the advantages each provides (which are assumed to be in direct relationship to size), and the nature of the external communications system and the quantity of information required to service a particular function (which is primarily a function of the disorder in the industry requiring financial service).² Thus, the previous chapter dealt with the factors which influenced the relative position of London and Montreal in the provision of financial services to Canada, and the relative position of Montreal and Toronto in the servicing of the financial needs of Upper Canada. This chapter is primarily concerned with the factors affecting the location of financial intermediaries serving the broader post-Confederation Canada, and in particular with the mining industry, western agriculture, manufacturing, and the oil industry. Investment in each

²For an elaboration on some aspects of the role of internal and external communications and autonomy, see Karl W. Deutsch, The Nerves of Government: Models of Political Communication and Control (New York: Free Press, 1966).

of these industries involves differing degrees of uncertainty and disorder in the information flow through the financial intermediaries, and therefore different locational criteria for those financial functions primarily involved with each.

In this chapter, it will be pointed out that instead of cities on the expanding periphery acquiring independent financial control over their hinterland, as Gras believed they would, the process led towards a centralization of those functions whose information requirements could best be met in large financial communities, a group which included a majority of such functions. Despite the shift in population away from the "hinge" cities in North America, there was not a commensurate shift in the centers of financial decision-making.³ In Britain,

³In the United States, Wall Street was able to continue its hold on the financial affairs of the country, despite the political pressure aiming at dispersion. In 1938, William O. Douglass, then chairman of the Securities and Exchange Commission, made an interesting assessment of the centripetal tendencies in American finance. "From about the 'seventies," he stated "the (securities) business gravitated more and more to New York so that by the time he was speaking,...all underwritten issues of \$1,000,000 or over, registered under the Securities Act of 1933, between July 1, 1936, and June 30, 1938, 84% were managed by investment banking firms with principal offices in New York City, and that the underwriting participants of New York firms in the same issues aggregated 72 per cent of the total, leaving but 28 per cent for bankers or dealers in the provinces. Most of our larger insurance companies with policy-holders in every state in the Union, are domiciled in New York and environs, and even those which are not, conduct most of their investment business through the New York market. About 70 per cent of the total assets of our investment companies are held by companies domiciled in and around New York City, although their stockholders are spread over the entire country. Most of the larger investment council firms, which have been administering a rapidly increasing amount of funds of clients residing from Maine to California, have their headquarters in New York City. Even of the total security investments of all banks in the country, about one-quarter is held by New York City banks. Similarly, of total trust funds under the administration of commercial banks and trust companies, it is estimated that between one-fourth and one-third are in the hands of about a dozen large New York institutions...Of all

as well, there was a centralizing tendency in the location of finance.⁴ It is fairly evident, as well, that Canadian financial decision-making has remained centralized on the two large financial centers which evolved in Canada prior to Confederation. The present chapter examines this latter-day Canadian case and seeks to describe and explain the centripetal and centrifugal forces existing in the Canadian financial system as part of a somewhat complex spatial-temporal process.

This chapter, like the previous one, is primarily concerned with four factors: (1) the relative communicative and other advantages accruing to financial decision-makers from their location in particular financial communities (a relationship which is assumed to be linear, because of insufficient measures with which to establish a more accurate curvilinear relationship); (2) the nature of the investment field, in terms of the uncertainty involved and the amount of information which optimally should be obtained before a financial intermediary commits its funds; (3) the sufficiency of the communications system to permit the flow of the requisite amount of information for satisfactory investment decisions from a particular point; and (4) the locational adaptation within the total financial system

stock trading on exchanges, about 95 per cent takes place on the New York Stock and New York Curb Exchanges alone, leaving only 5 per cent for the other twenty-seven exchanges" (James Allen, ed., *Democracy and Finance: The Addresses and Public Statements of William O. Douglas as Member and Chairman of the Securities and Exchange Commission* (New Haven: Yale University Press, 1940), pp. 19 and 23. Little change occurred in this centralized structure in the following decades (see Robbins and Terleckyj, *op. cit.*).

⁴See, for example, Maxwell Gaskin, *The Scottish Banks* (London: George Allen and Unwin Ltd., 1965), especially Ch. 12 "The Scottish Banks and London," pp. 182-185.

to changes in this informational environment.

After a brief consideration of Canadian economic growth during this period, all available statistics are assembled in order to point out the relative sizes of the financial communities of Canada throughout the period. Following this, a brief consideration of the physical communications facilities which existed is presented. The nature of several investment fields in terms of the amount of information which needs to be assembled in order to make a satisfactory investment decision are then assessed. The locational adaptation of the financial intermediaries, in response to these factors, is considered throughout the various sub-sections.

1. An Outline of Canadian Economic Growth after 1871

The majority of the British North American colonies and territories were joined in 1867, but it was not until the turn of the century that a significant degree of economic integration was achieved. In the interval, powerful anticipations and a considerable expenditure on an uneconomic all-Canadian transportation system, and the promotion of industrialization in preparation for the economic expansion anticipated within the bounds of the new Dominion, had to suffice. The period from 1870 to the mid-'90's was one in which the infrastructure was made ready. "Most of the secular decisions at this stage of Canadian development were made by governmental bodies...and the implementation of these policies involved the exercise of initiative by governments."⁵ By the early part of the twentieth century, large

⁵Hugh G. J. Aitken, "Defensive Expansionism: The State and Economic Growth in Canada," in Hugh G. J. Aitken, ed., The State and Economic Growth (New York: Social Science Research Council, 1959), p. 103.

external economies were being brought about by government activities and a large scale boom resulted. The agricultural frontier of the Canadian west presented basic opportunities, and these opportunities attracted a large inflow of settlers, both to the frontier itself and the factories of Eastern Canada operating securely behind a high tariff barrier. At times incidental to the development of the agricultural frontier was the tapping of the mineral and forest frontier. The efficacy of the governmental development program was sufficient to produce, between 1896 and 1914, what Rostow has termed Canada's economic "take off."⁶

Even though total investment between 1870 and 1895 was on a considerably larger scale than in the earlier period 1840-1870, "the repercussions were brief interruptions in a secular depression extending over twenty-five years. Explosive building and real estate booms were induced but these were not general, and had a very short life in those localities where they did occur."⁷ The effect of government action was virtually limited to the initial impact of each act, because of the lack of basic opportunities during the period.

Quite suddenly, in the mid-1890's, a point was reached where the prairie frontier of Canada offered superior opportunities for development than did alternative opportunities open to migrants. At the outset of the boom, investment was largely the expenditure of personal effort and savings upon opportunities recognized by those

⁶W. W. Rostow, The Stages of Economic Growth (Cambridge: Cambridge University Press, 1962), p. 38.

⁷Kenneth Buckley, Capital Formation in Canada, 1896-1930 (Toronto: The U. of T. Press, 1955), p. 5.

close at hand. "Outside capital was not attracted on a significant scale until the boom was well underway."⁸ But, for the first three decades of the twentieth century, "the prairie provinces constituted the geographic locus of the Canadian investment frontier."⁹ Assembled on the prairies was a massive structure of capital equipment, without which the large scale production and marketing of wheat would have been impossible. Each one of the hundreds of thousands of new farm units in the prairie provinces had to be provided with dwellings, however rudimentary, a barn or stable, horses, granaries, a complex variety of machinery for cultivating, seeding, harvesting and threshing, and as well, incidentals such as fencing materials, pumps, and windmills. The marketing of farm produce and the purchase of equipment and supplies required thousands of miles of additional railways and hundreds of new market centers, each of the latter equipped with sidings, elevators and loading platforms, warehouses, stores and housing. Buckley estimates that the prairie farm investment alone constituted 17.2 per cent of the gross domestic capital formation (see Table 5-1). The expansion of post-C.P.R. mainline railroads was almost totally motivated by prairie wheat, as were the prairie branch lines. Prairie mileage grew from 3,300 in 1897 to 4,000 miles in 1901, 6,000 in 1906, 8,000 in 1911, 14,000 in 1916, and 18,000 by 1929. Between 1901 and 1930, investment in railways accounted for between 10 and 20 per cent of the gross domestic capital formation and

⁸Ibid., p.

⁹Vernon C. Fowke, The National Policy and the Wheat Economy (Toronto: University of Toronto Press, 1957), p. 71.

TABLE 5-1 Prairie Farm and Transport Investment Compared with
Gross Domestic Capital Formation, 1901-1930
(millions of dollars)

Period	1 Gross domestic capital formation	2 Prairie farm invest- ment	3 % 2 is of 1	4 Railway invest- ment	5 % 4 is of 1	6 Total 2 + 4	7 % 6 is of 1
1901-05	1,283	221	17.2	165	12.9	386	30.1
1906-10	2,287	319	13.9	473	20.7	792	34.6
1911-15	3,279	463	14.1	682	20.8	1,145	34.9
1916-20	4,033	370	9.2	423	10.5	793	19.7
1921-25	3,641	245	6.7	386	10.6	631	17.3
1926-30	5,831	454	7.8	583	10.0	1,037	17.8

Adapted from Kenneth Buckley, Capital Formation in Canada, 1896-1930,
(Toronto: The University of Toronto Press, 1955), p. 8.

most of this construction took place in the areas acquired after Confederation. In addition, by 1930, road development was competing with the railroad as an object of investment.

The beginnings of a sizeable investment in Canadian mining could be seen prior to 1900. In 1883, the copper-nickle ores of the Sudbury basin were discovered and on Christmas Eve, 1888, the first smelter was blown in at Cooper Cliff. Asbestos was first milled in Quebec in the same year and the coal fields at the Crow's Nest Pass and Lethbridge were opened in 1879 and 1886. By 1891, the first ore shipments were sent from Rossland, in 1895 the Sullivan mine commenced shipping, and in 1901 the Britannia mine began shipping concentrates to Racoma. In 1903 a mining rush occurred at Cobalt, the repercussions of which were to last right up to the present. The high grade silver-cobalt ores of the field provided the means and incentive which enabled a variety of prospectors and developers to open the Porcupine area, Kirkland Lake, and Noranda. By the 1930's mines were being opened and mills and smelters established at a feverish pace.¹⁰ Technological advance and the demands of two world wars led to greatly expanded production. The wars acted as a protective device, forcing domestic substitution of imported manufactured goods, and yet increasing the export demand both for the manufactured goods and the metals needed for skills and other instruments of war. For example, Canadian non-ferrous metal refining increased from just under \$129 million in

¹⁰See the Dominion Bureau of Statistics, "Mining Events, 1604-1956," in Canadian Mineral Statistics, 1886-1956, reference paper number 68 (Ottawa: Queen's Printer, 1957) for a detailed portrayal of the accelerating development of Canadian mining during this period.

1914 to \$211.3 million in 1918.

Had the expanding exporting regions of Canada "exchanged the proceeds of its sales directly for imports, as it would largely have done in the absence of a nationally planned transport system and tariff, the economic prosperity of the eastern provinces would have been dependent upon local developments. But, the expenditures of the new region were channeled to the east, and protected manufacturing industries expanded greatly to meet the demands."¹¹ British Columbia rerouted its lumber shipments from exports to the prairie expansion, and even the Maritimes, particularly its iron and steel industry, shared in the boom. But, the central provinces were major beneficiaries of the frontier expansion. Manufacturing expanded rapidly and retained a dominance in most fields (see Tables 5-2 and 5-3).

The most spectacular increases in opportunities was in the tertiary sector, but with the exception of railroads and certain other utilities, they were not capital intensive. Housing was the only type of investment to rival transportation in fundamental importance and to surpass it in size. Investment in housing for the first 30 years of the century was almost as large as the total investment in all transport structures and equipment and was less quixotic in its demands for investment capital. A considerable amount of the addition to the supply of tertiary activity in Canada took place in the new frontier areas and especially on the new agricultural frontier. The western cities, towns, and villages were almost entirely based on tertiary activity, with a slight dependence on construction employment but

¹¹Buckley, op. cit., p. 8; also, see Duesenberry, loc. cit.

TABLE 5-2 Capital Invested in Manufacturing Establishments, by Province, 1910

Province	Capital invested in manufacturing establishments	% of Total	Province	Capital invested in manufacturing establishments	% of Total
Alberta	\$ 29,518,346	2.4	Ontario	\$ 595,394,608	47.7
British Columbia	123,027,521	9.9	P. E. I.	2,013,365	.2
Manitoba	47,941,540	3.8	Quebec	326,946,925	26.2
New Brunswick	36,125,012	2.9	Saskatchewan	7,019,951	.6
Nova Scotia	79,596,341	6.4	TOTAL CANADA	1,247,583,609	100.0

Source: Census of Canada, 1911, Manufacturing, Vol. 3 (Ottawa: King's Printer 1913), p. ix.

TABLE 5-3 Proportion of National Manufacturing Output in the Central Provinces in 1929

Industrial Group	Percentages of Net National Production		
	In Ontario	In Quebec	In Ontario and Quebec
Automobiles	96	-	96
Rubber tires	95	4	99
Machinery	72	25	97
Castings and forgings	69	21	90
Railway rolling stock	23	53	76
Hardware and tools	68	29	97
Agricultural implements	95	3	98
Cotton yarn and cloth	18	75	93
Boots and shoes	36	60	96
Rubber footwear	38	62	100
Clothing, men's	36	61	97
Clothing, women's	56	40	96
Hosiery and knit goods	72	22	94
Electric apparatus and supplies	77	22	99

Source: W. A. Mackintosh, Economic Background of Dominion-Provincial Relations. Prepared for the Royal Commission on Dominion-Provincial Relations, 1939 (Toronto: McClelland and Stewart Limited, 1964) (first published by King's Printer in 1939), p. 50.

virtually none on manufacturing. Winnipeg became the main wholesale center located in the Prairie Provinces, with 19.1 per cent of total Canadian wholesale sales (as opposed to Montreal's 23.1 per cent, Toronto's 20.1 per cent, and Vancouver's 6.4 per cent). Head offices of national wholesalers and department and chain store retailers remained concentrated in Montreal and Toronto.

TABLE 5-4 Rough Estimates of Capital Inflow and Net Private Domestic Savings, 1901-1930 (after Buckley)

Period	Capital Inflow	Net Private Domestic Savings	Period	Capital Inflow	Net Private Domestic Savings
(Millions of dollars)					
1901-05	301	363	1916-20	262	3,582
1906-10	784	662	1921-25	-72	1,540
1911-15	1,515	876	1926-30	563	2,190

Source: Kenneth Buckley, Capital Formation in Canada, 1896-1930 (Toronto: University of Toronto Press, 1955), p. 64.

As can be seen from Table 5-4, imported capital played a vital role in the crucial first 30 years of the century. Capital inflows even surpassed the net private domestic savings during the period 1906-1915. This latter year also marks the close of the period when the United Kingdom was the major source of external capital and the commencement of an era when American capital dominated. "The change after 1914 was not a simple shift from London to New York as it is sometimes regarded. American capital of a different character from British had already assumed prominence before 1914 in the forms of

direct investments in Canadian branches and subsidiaries of American firms, chiefly in manufacturing, mining, and forest industries. Management accompanied the capital and ownership, and control remained in the United States."¹²

By 1946, United States investments had reached a total of \$5.16 billion, about 72 per cent of Canadian long-term borrowings, and by 1958 it reached a total of \$19.1 billion. The United States in that year accounted for 82 per cent of new foreign investment, the United Kingdom for about 15 per cent, and all other countries for 3 per cent. Utilities in their various forms were the usual destination for all non-resident portfolio investors. In 1930, over 60 per cent of railway capital was owned by foreigners. The percentage of foreign holdings of government debt inclined after 1914 as a result of the intensive governmental cultivation of the domestic market. The foregoing statistics might suggest that Canadian savings were relatively insignificant. However, the Canadian economy was by mid-century less dependent upon foreign capital imports than it was in earlier boom periods.¹³ Not only was the proportion of Canadian capital going into the country's development more than maintained, but also Canada herself became a substantial exporter of capital.

A very large share of private domestic net savings "were channeled directly into investment without benefit of market

¹²Buckley, op. cit., p. 66.

¹³W. T. Easterbrook and Hugh G. J. Aitken, Canadian Economic History (Toronto: Macmillan, 1963), p. 572.

intermediaries."¹⁴ Much of the savings were accumulated by small scale entrepreneurs operating unincorporated business, whether it be in agriculture, fishing, mining, wholesaling, retailing, or construction. Direct reinvestment of profits was common. In part, this was reflected in a weakness of the domestic capital market in which there existed noticeable gaps in the breadth of coverage. The involvement of financial intermediaries increased throughout the period, but, of course even to-day a considerable amount of investment does not pass through the hands of the financial intermediaries. The supply of new capital for the frontier areas, at least initially, did not come from those areas themselves.¹⁵ The substitution of local savings in the form of reinvestment of earnings was a relatively slow process, especially on the prairie farms.¹⁶ In 1931, the total prairie farm debt has been estimated at \$650 million, including a total mortgage debt of \$488 million, \$49 million as the prairie farm debt to implement companies, \$48 million to banks, and \$65 million to stores, automobile dealers, and supply companies.¹⁷ The funds came from longer settled areas, from the accumulated savings of Central Canada, Britain, Europe, and the United States.

But, the fact that funds came from the east and foreign areas does not mean that the financial intermediaries had to be located in

¹⁴Buckley, op. cit., p. 67.

¹⁵An exception might be made for some placer gold developments.

¹⁶See R. W. Murchie, Agricultural Progress on the Prairie Frontier (Toronto: University of Toronto Press, 1936), pp. 72-73.

¹⁷H. A. Mackintosh, Economic Problems of the Prairie Provinces (Toronto, 1938).

those areas as well. They could be, and frequently were, located at the place of demand for the funds, or at an intermediary location between the centers of supply and demand.

Especially after the provisioning of the infrastructure of the new agricultural frontier, a considerable portion of the demand for capital lay in the industrial belt of Canada in southwestern Quebec and southern Ontario. It is not surprising, therefore, that the already existing financial centers of Montreal and Toronto would serve these areas and grow as a result. Their size was considerably increased by the growth on their doorstep.¹⁸ Tables 5-5, 5-6 and 5-7 all point out the consistently larger size of the demand for financial services in the Central Canadian metropolitan market. This larger demand traditionally would be offered as the causality of Toronto and Montreal's continuing domination of Canadian finance, the view being that a threshold is reached here for higher level financial activity. However, it is the contention in this thesis that an equal or more significant causal factor is the nature of the information environment and its growth.

With this approach, the central problem is one of comprehending the financial relationship of the two central cities with the

¹⁸It is not always the case, however, that a sizeable industrial agglomeration generates an equally sizeable local financial community to serve it. For example, the Los Angeles area is an immense industrial area, and by far the largest population agglomeration in California (the population center of gravity of California is in Ventura County, a northern suburb of Los Angeles), and yet to a surprising degree, Los Angeles' financial needs are met by San Francisco's financial intermediaries. San Francisco's financial community is by most measures of the level of financial decision-making, the largest in the state (and the second largest in the United States).

TABLE 5-5 Population, Canada and Major Regions, 1871-1961
(in thousands)

Year	Canada	Maritimes	Quebec	Ontario	Prairies	British Columbia
1871	3,641	767	1,192	1,621	25	36
1881	4,268	871	1,359	1,927	62	49
1891	4,734	881	1,489	2,114	152	98
1901	5,324	894	1,649	2,183	420	179
1911	7,192	938	2,006	2,527	1,328	392
1921	8,776	1,000	2,361	2,934	1,956	525
1931	10,363	1,009	2,875	3,432	2,354	694
1941	11,490	1,130	3,332	3,788	2,422	818
1951	13,623	1,257	4,056	4,598	2,548	1,165
1961	17,743	1,440	5,259	6,236	3,179	1,629

Sources: 1931 Census, Vol. 1, Table Ia and 1961 Census, DBS 99-511, Table 1. Also in Leroy O. Stone, Urban Development in Canada, 1961 Census Monograph (Ottawa: Dominion Bureau of Statistics, 1967), p. 269.

TABLE 5-6 Population for the Principal Regions of Metropolitan Development in Canada, 1901-1961

Principal Regions of Metropolitan Development	1901	1911	1921	1931	1941	1951	1961
Population (in thousands)							
Halifax.....	51	58	75	79	99	134	184
Saint John.....	51	54	61	63	71	78	96
Montréal.....	415	616	796	1,086	1,216	1,504	2,156
Québec.....	117	133	158	207	241	297	383
Hamilton.....	79	112	154	190	207	266	359
Kitchener-Waterloo.....	33	63	75	90	99	126	177
London.....	52	61	74	87	97	129	181
Ottawa.....	103	133	163	197	236	296	436
Sudbury.....	16	30	43	58	81	110	166
Toronto.....	303	478	686	901	1,002	1,264	1,942
Windsor.....	22	32	66	117	129	163	192
Winnipeg.....	48	157	229	295	302	357	476
Calgary.....	8	56	78	103	112	156	290
Edmonton.....	15	48	87	116	136	211	374
Vancouver.....	-	-	224	333	394	562	790
Victoria.....	-	-	64	70	86	122	162
Per cent change in population since last census							
Halifax.....	-	13.4	30.6	4.1	25.5	35.8	37.3
Saint John.....	-	4.7	14.2	2.5	13.1	10.5	22.0
Montréal.....	-	43.6	29.2	36.3	12.1	23.6	43.3
Québec.....	-	13.9	18.5	30.7	16.7	23.0	29.2
Hamilton.....	-	40.6	37.5	23.7	8.8	28.7	34.9
Kitchener-Waterloo.....	-	19.0	20.2	19.4	9.9	27.8	40.1
London.....	-	18.5	20.9	18.0	11.6	32.7	40.6
Ottawa.....	-	28.4	26.4	17.6	19.9	25.3	47.2
Sudbury.....	-	84.9	44.5	35.4	38.7	35.6	51.4
Toronto.....	-	57.7	42.6	31.3	11.2	26.2	53.6
Windsor.....	-	44.7	103.4	77.2	10.6	26.1	17.6
Winnipeg.....	-	223.7	46.0	28.7	2.4	18.1	33.4
Calgary.....	-	570.2	39.5	33.0	8.1	39.7	85.8
Edmonton.....	-	215.5	83.0	32.4	17.9	55.1	77.1
Vancouver.....	-	-	-	51.3	16.5	42.7	40.6
Victoria.....	-	-	-	9.1	23.3	41.5	33.5

Source: 1961 Census. Contained in: Leroy O. Stone, Urban Development in Canada, Dominion Bureau of Statistics 1961 Census Monograph, (Ottawa: Queen's Printer, 1967).

Table 5-7- Relative Importance of Individual Clearing House Centres
1911 - 1967

Clearing house centres	1911*	1924	1933	1944	1958	1967
percentage of Canada total						
Atlantic Provinces:						
Halifax.....	1.17	0.92	0.85	1.17	0.89	1.09
Moncton.....	-	0.27	0.24	0.38	0.29	0.22
Saint John.....	1.04	0.96	0.51	0.64	0.44	0.39
St. John's.....	-	-	-	-	0.39	0.54
Totals.....		2.15	1.60	2.19	2.01	2.24
Quebec:						
Montreal.....	32.00	27.62	26.50	25.45	26.11	28.00
Quebec.....	1.79	1.97	1.86	2.69	2.26	2.33
Sherbrooke.....	-	0.36	0.22	0.24	0.24	0.25
Totals.....		29.95	28.58	28.38	28.61	30.58
Ontario:						
Brantford.....	0.36	0.32	0.27	0.39	0.28	0.27
Chatham.....	-	0.31	0.21	0.24	0.29	0.20
Cornwall.....	-	-	-	-	0.18	0.15
Fort William.....	0.09	0.35	0.16	0.28	0.21	0.14
Hamilton.....	1.68	2.03	1.54	2.27	2.12	1.92
Kingston.....	-	0.23	0.17	0.27	0.22	0.19
Kitchener.....	-	0.35	0.31	0.47	0.47	0.51
London.....	0.95	0.99	1.00	1.10	1.25	1.39
Ottawa.....	2.89	7.21	4.47	12.69	2.18	2.18
Peterborough.....	-	0.25	0.16	0.25	0.24	0.21
St. Catharines.....	-	-	-	0.41	0.36	0.37
Sarnia.....	-	-	0.29	0.31	0.26	0.22
Sudbury.....	-	-	0.14	0.19	0.28	0.22
Toronto.....	25.02	28.20	34.09	23.81	37.15	36.26
Windsor.....	-	1.04	0.64	1.66	0.96	1.01
Totals.....		41.28	43.45	44.34	46.45	45.24
Prairie Provinces:						
Brandon.....	0.39	0.18	0.09	0.15	0.10	0.09
Calgary.....	2.94	2.35	1.86	2.47	3.46	3.24
Edmonton.....	1.63	1.26	1.22	1.75	2.33	2.73
Lethbridge.....	0.37	0.22	0.12	0.19	0.20	0.16
Medicine Hat.....	-	0.19	0.07	0.11	0.09	0.07
Moose Jaw.....	0.54	0.36	0.16	0.28	0.18	0.07
Prince Albert.....	-	0.09	0.06	0.13	0.09	0.07
Regina.....	0.98	1.10	1.47	1.90	1.64	1.59
Saskatoon.....	0.85	0.43	0.33	0.44	0.44	0.51
Winnipeg.....	15.83	13.97	16.01	11.51	7.06	6.14
Totals.....		20.27	21.39	18.93	15.59	14.67
British Columbia:						
New Westminster.....	-	0.22	0.16	0.29	0.37	
Vancouver.....	7.33	5.19	4.03	5.04	5.94	6.20
Victoria.....	1.81	0.94	0.79	0.83	1.03	1.07
Totals.....		6.35	4.98	6.16	7.34	7.27
CANADA.....		100	100	100	100	100

*1911 Bank Clearing; data from: J. Castell Hopkins, ed., Canadian Annual Review of Public Affairs, 1913 (Toronto: Annual Review Publishing Co., 1913), p. 53.

1924 through 1967; Clearing House Statistics from: Dominion Bureau of Statistics, cheques cashed in Clearing Centres - 1967, (Ottawa: Queen's Printer, 1968).

**"Bank clearings" record only dealings between two separate banks ignoring cheque payments completed within one bank, while "cheques cashed in clearing centres include all amounts debited by the banks to accounts of customers, and therefore includes payments made within one bank.

peripheral centers, in understanding the process by which these cities were able to exercise dominance over such great distances, and correlating the particular information characteristics of the various financial functions with the spatial adaptation they underwent in response to the expanded environment of post-Confederation Canada. In such an analysis, the weaknesses of Gras's schema, and the application of the concept of hinterlands and intervening opportunity in the latter-day spatial evolution of the financial system, should become apparent.

2. The Growth of Selected Financial Communities in Canada, 1871-1961

The internal communications system of a financial community, along with the classical agglomeration economies, are assumed to vary directly with the size of that financial community. Why the opportunity to acquire profitable information is greater within a financial community of a relatively larger size is largely a function of overview advantages and the prevalence of face-to-face contacts in the dissemination of such information. Information such as the profitability of the many divisions of a corporation or the profitability of a mine, dependent as it is on the quality of the ore, decisions of distant unions, the demand for minerals in various areas of the world, and the cost of development funds may be available piecemeal at many locations. However, only at a center which has cognizance of the many interrelated factors is a particular opportunity for investment appreciated. Information of these appreciated opportunities is frequently transmitted by face-to-face contact, or by less intimate means on the basis of prior face-to-face contact, or most importantly

by observation of the activities of the possessors of valuable information in putting to advantage their information. On this basis, exposure to the idea is most likely to be acquired in the larger financial community than in a smaller one, or in the larger world. This information probably diffuses as Hagerstrand and other diffusion theorists have proposed for information within an urban system. And the time in which this diffusion is sharply limited by the rapidity with which the financial markets operate and thus the speed with which the information becomes obsolete. Thus, while the basic information upon which a profitable financial decision is made may come from various scattered sources, it only becomes valuable in a location where the many bits of information can be assembled and appreciated. Because of the particular complexity of much of the input required for a wise financial decision, the number of locations in which that array can be assembled is limited (for a more complete elaboration, see Chapter II).

Thus, the size of the financial communities, as well as the nature of the flow of information from the various external sources, is particularly important for an assessment of spatial processes behind the evolving spatial distribution of financial activity in Canada.

There are no totally adequate measures of the size, and inter-connectiveness, of functions within a financial center, or of the total amount and level of decision-making authority to be found in the communities. The most important measures which are available for the period between 1871 and 1961 are those of assets, number of institutions, and employment. Each of these only alludes to the amount of

decision-making authority present in a given center. A measure such as the number of headquarters in a given center multiplied by the assets they control¹⁹ tends to diminish the impact of those centers whose financial activity is primarily concerned with marketing in a local area, services provided by the broader system centered in the larger financial communities. Employment data, on the other hand, tend to mask the level of decision-making authority in a center, for most employment in finance is of the "front office" variety, which is distributed roughly as the population is distributed and is not reflective of an individual financial community as such. Even with present-day statistics, it would be a formidable task (and, as yet, an unaccomplished one) to isolate a single statistical measure for the financial decision-making power of a given financial community.²⁰ In dealing with the long-range processes of financial location, the choice of measures is severely limited. Of the two primary measures, the one of assets attributed to the head office comes closest to describing the allocation of power within the financial system (government not included), but this allocation must be tempered with an awareness that it does overemphasize centralization within the system. The most valuable measure, and one which is not quantifiable for a

¹⁹This measure is the sole one used by Goodwin as an indication of managerial control (William Goodwin, "The Management Center in the United States," Geographical Review, Vol. 55, no. 1 (Jan. 1965), pp. 1-16) and is also used by Kerr (Donald Kerr, "Some Aspects of the Geography of Finance in Canada," The Canadian Geographer, Vol. 9, no. 4, pp. 175-192).

²⁰For a treatment of more modern statistics, see Sidney M. Robbins and Nestor E. Terleckyj, Money Metropolis, New York Metropolitan Region Study (Cambridge: Harvard University Press, 1960) and Donald Kerr, "Some Aspects of the Geography of Finance in Canada," The Canadian Geographer, Vol. 9, no. 4 (1965), pp. 175-192.

TABLE 5-8 The Distribution of Managerial Occupations and Total Employment in Finance in Canadian Cities, 1911-1961.*

	1911 ^{1,2}			1921 ³			1931 ⁴			1941 ⁵			1951 ⁶			1961 ⁷					
	% of total occupations in finance	Total employment in finance	% of total	% of total occupations in finance	Total employment in finance	% of total	% of total occupations in finance	Total employment in finance	% of total	% of total occupations in finance	Total employment in finance	% of total	% of total occupations in finance	Total employment in finance	% of total	% of total occupations in finance	Total employment in finance				
Halifax	-	349	2.5	140	2.8	2.4	118	2.0	-	-	2.3	782	2.3	199	2.2	398	2.5	1,972	2.7		
Québec	-	325	2.3	138	2.7	2.4	157	2.7	-	-	3.0	1,184	2.7	343	3.8	630	4.0	2,221	3.0		
Montréal	-	2,436	17.3	938	18.1	22.4	1,199	18.4	-	-	26.7	10,515	22.3	2,476	26.8	4,112	26.2	19,677	27.2		
Ottawa	-	663	4.7	153	3.0	7.97	212	3.7	-	-	6.9	2,718	4.3	451	5.0	762	4.9	3,580	5.0		
Toronto	-	3,454	24.6	1,712	33.6	34.4	1,938	33.7	-	-	33.4	13,029	30.3	2,956	32.8	4,706	30.0	22,900	31.7		
Hamilton	-	485	3.4	155	3.0	3.0	175	3.0	-	-	2.8	1,099	3.3	259	2.9	476	3.0	2,271	3.1		
London	-	356	2.5	160	3.1	5.84	198	3.4	-	-	3.4	1,336	3.6	243	2.7	439	2.8	1,587	2.2		
Winnipeg	-	2,234	15.9	645	12.7	14.8	531	9.2	-	-	8.2	3,233	9.3	738	8.1	984	6.2	4,094	5.7		
Regina	-	279	2.0	176	3.5	5.77	269	4.5	-	-	1.9	748	3.0	100	1.1	201	1.2	1,669	2.3		
Calgary	-	1,135	8.0	217	4.3	7.63	332	5.8	-	-	2.6	1,026	3.4	304	3.4	673	4.3	2,746	3.8		
Edmonton	-	838	6.0	176	3.5	4.92	159	2.8	-	-	1.9	763	2.4	261	2.9	625	4.0	2,556	3.5		
Vancouver	-	1,514	10.8	478	9.4	11.37	467	8.1	-	-	7.4	2,929	9.1	785	8.7	1,659	10.6	6,990	9.7		
TOTAL	-	14,068	100.0	5,088	100.0	27,274	100.0	5,747	100.0	-	100.0	39,363	100.0	9,065	100.0	79,277	100.0	15,665	100.0	72,213	100.0

*This data is not entirely comparable horizontally, owing to inconsistencies in the classifications of the various financial occupations used in the several censuses, and changing definitions of the urban area.

¹Data for 1881, 1891 and 1901 is not available. The 1881 census of occupations does not differentiate clearly financial occupations from other commercial activities. The 1891 census only gives data by provinces and does not sufficiently isolate financial activity. The 1901 census contains no information on financial employment.

²The classification system of the 1911 census does not permit the isolation of the managerial occupations in finance. The "total employment in finance" figures include: Bank officials and clerks, brokers and broker clerks, insurance companies officials and clerks (but not agents), and loan, trust and real estate officials and clerks. (In this case, it is impossible to excise the real estate function.)

³The managerial occupations for 1921 include: "bank managers, inspectors, etc., stock brokers, insurance officials, managers, superintendents, and managers and superintendents of loan and trust companies. The total figures include all bank employees, stock and bond brokers, all insurance employment except agents, and all loan and trust company employment."

⁴Employment in finance is not available. Occupation figures include: finance officials, insurance officials, and stock and bond brokers, and others.

⁵Occupation figures include: managers, officials, stock and bond brokers, and other finance occupations. Employment figures include real estate.

⁶Ibid.

⁷Occupation figures include real estate. Employment figures are the D.B.S. classification entitled "financial institutions".

long time series, is the verdict of those people with intimate knowledge of the financial structure of the country during particular periods. This tapping of the historical record is the main source for the succeeding sections.

a. The Changing Distribution of Bank
Headquarters Among Canadian Cities

Tables 5-9 and 5-10 portray the changing distribution of banks and their assets among the cities and towns of Canada between 1871 and 1960. The overall centralizing process is obvious, especially in the period between 1900 and 1930 when the number of banks in Toronto and Montreal went from 38.9 per cent of the Canadian total to 90.0 per cent and the share of the total banking assets in the country belonging to the metropolitan banks went from 71.0 per cent to 99.8 per cent. In the period between 1871 and 1900, the process of spatial centralization of the banks was not strong, in parallel with the economy in general. It was not until the prosperity of the "wheat economy" and the inflationary periods of the First World War and the 1920's that the banks of the Toronto and Montreal financial communities completed their domination of Canadian banking.

Unlike many manufacturing fields where the entry of new firms, as a result of expansion in the economy, had a tendency to compensate for mergers and moderate any tendency towards concentration, the expansion of the boom times after 1900 did not lead to an expansion in the number of banking firms. In the period between 1900 and 1910, the number of banks declined from 36 to 31 and yet the assets of Canadian banks increased by \$742,995,000. Not only did the new banks which were formed fail to compensate for the absorbed or failed banks,

Table 5-9 The Distribution of Banks and Bank Assets Among the Cities and Towns of Canada, 1871-1960+

City or Town	1871		1880		1890		1900		1910		1920		1930		1940		1950		1960	
	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)	No. of Banks	Assets \$ (,000)
Montreal	9	74,547	9	79,806	9	113,856	7***	201,880	10	537,957	7	1,622,806	5	1,885,265	5	2,098,258	5	5,017,816	5	8,671,595
Toronto	4	21,654	7	38,480	8	72,312	7***	137,920	12	478,777	8	1,214,134	5	1,010,930	5	1,518,017	5	3,778,655	4	7,827,500
Quebec	2	9,786	2	12,204	2	14,758	2	23,119	2	59,540	-	-	-	-	-	-	-	-	-	-
Halifax	4	4,952	5	11,997	5	19,858	5***	52,992	1	15,290	-	-	-	-	-	-	-	-	-	-
Winnipeg	-	-	-	-	1	1,376	-	-	1	15,325	1	164,891	-	-	-	-	-	-	-	-
Vancouver	-	-	-	-	-	-	-	-	1	362	-	-	-	-	-	-	-	-	-	-
Hamilton	-	-	1	3,077	1	5,894	1	14,967	1	39,751	1	86,591	-	-	-	-	-	-	-	-
Ottawa	-	-	1	1,959	1	5,425	1	15,717	1	40,278	-	-	-	-	-	-	-	-	-	-
Victoria	1*	-	1*	-	1	3,835	1	7,832	-	-	-	-	-	-	-	-	-	-	-	-
Sherbrooke	1	1,368	1	4,511	1	5,235	1	9,395	1	23,942	-	-	-	-	-	-	-	-	-	-
St. Hyacinth	1	-	1	-	1	1,143	1	1,683	-	-	-	-	-	-	-	-	-	-	-	-
St. Jean	1	-	1	-	1	414	1	710	-	-	-	-	-	-	-	-	-	-	-	-
St. John, N.B.	1	3,520	2	4,779	1	3,134	1	3,884	1	10,129	-	-	-	-	-	-	-	-	-	-
London	-	-	-	-	1	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yarmouth	2**	375	2	1,124	2	1,365	2	1,594	-	-	-	-	-	-	-	-	-	-	-	-
St. Stephen's	1	466	1	652	1	522	1	699	-	-	-	-	-	-	-	-	-	-	-	-
Pictou	-	-	1	923	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summerside	1*	-	1*	-	-	-	-	272	-	-	-	-	-	-	-	-	-	-	-	-
Charlottetown	2*	-	2*	-	-	-	972	-	-	-	-	-	-	-	-	-	-	-	-	-
Windsor	1*	-	1	649	1	693	1	1,524	-	-	-	-	-	-	-	-	-	-	-	-
Fredericton	1*	-	1*	-	1*	-	914	-	-	-	-	-	-	-	-	-	-	-	-	-
Weyburn, Sask.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Catharines	1	1,227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bowmanville	1	7,114	1	6,874	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oshawa	-	-	-	-	1	1,677	1	2,682	-	-	-	-	-	-	-	-	-	-	-	-

+Bank assets are allocated to the location of the head office (with the exception of the Bank of Nova Scotia after 1900, The Bank of British North America, and the Bank of British Columbia).

*Did not submit returns.

**One bank did not submit returns

***In 1900 the Bank of Nova Scotia moved its general manager to Toronto and the head office in Halifax became titular only. In 1901 the Merchants Bank of Halifax was rechartered as The Royal Bank of Canada and the headquarters were moved to Montreal. The figures for 1900 allocate these banks to Halifax. For subsequent dates they are allocated to Toronto and Montreal respectively.

Sources:
 1871 - Assets as of June 30th, from the Canada Gazette, 1871, Vol. 5, p. 122, and Canada, Sessional Papers, 5-17, Vol. xix, no. 3, p. 1861.
 1880 - Assets as of Dec. 31, from Henry J. Morgan, The Dominion Annual Register and Review, 1880-1881 (Montreal: John Lovell, 1881), p. 439.

1890 - Assets as of Dec. 31, 1889, The Canada Gazette, Vol. xxiii no. 26.
 1900 - Assets as of July 31, 1900, Returns of the Chartered Banks, (Ottawa: King's Printer, 1900)
 1910 - Assets as of July 31, 1910, Ibid., 1910.
 1920 - Assets as of July 31, 1920, Ibid., 1920.
 1930 - Assets as of July 31, 1930, Ibid., 1930.
 1940 - Assets as of July 31, 1940, Ibid., 1940.
 1950 - Assets as of July 31, 1950, Ibid., 1950.
 1960 - Assets as of July 31, 1960, "Statement of the Assets and Liabilities of the Chartered Banks of Canada" Supplement to the Canada Gazette, Sept. 3, 1960.

TABLE 5-10 Number and Assets of Montreal and Toronto Banks Compared to Those of Other Cities and Towns of Canada

	1871	1880	1890	1900	1910
1. Toronto & Montreal (,000)	96,201	118,286	186,168	339,800	1,016,734
2. Others (,000)	28,808	48,749	66,353	138,956	204,417
3. Total (,000)	125,010	167,035	252,521	478,756	1,221,151
4. % 1 is of 3	77.0	70.8	73.7	71.0	83.3
5. Number of banks in Toronto and Montreal	13	16	17	14	22
6. % of total number of banks	40.6	41.0	43.6	38.9	71.0

	1920	1930	1940	1950	1960
1. Toronto & Montreal (,000)	2,836,940	2,896,195	3,616,276	8,796,471	16,499,095
2. Others (,000)	255,325	4,532	0	0	0
3. Total (,000)	3,092,265	2,900,727	3,616,276	8,796,471	16,499,095
4. % 1 is of 3	91.7	99.8	100.0	100.0	100.0
5. Number of banks in Toronto and Montreal	13	10	10	10	9
6. % of total number of banks	83.3	90.9	100.0	100.0	100.0

Source: Table 5-9

but also they were usually formed in the very centers whose banks were doing the absorbing, and were helping to cause the failure of banks located away from the financial core areas. Even though the small peripheral banks were falling under competitive pressure, the two major cities could act as seedbeds for new small banks. During this period, ten new banks were formed but seven of these were located in either Toronto or Montreal and only three in the newer areas of post-Confederation Canada (one in Winnipeg, one in Weyburn, Saskatchewan, and one in Vancouver).²¹

In the period 1871 to 1900, on the other hand, a larger number of new banks were formed outside of Toronto and Montreal. In all, only 11 of the 24 new banks were formed in these two centers.²² In addition, the proportion of the total banking assets of Canada which were possessed by Toronto and Montreal banks, did not increase as rapidly as in the subsequent expansive period. While the causality of the difference between the centralization tendencies during the two periods is difficult to isolate, there appears to be a relationship between the expansion of branch banks to accommodate a given market and the inception of new banks. Most of the new banks which were formed in the

²¹C. S. Howard, "Canadian Banks and Bank Notes: A Record," Journal of the Canadian Bankers Association, Vol. 57, No. 1 (Winter 1950), p. 61. This pattern is in keeping with Vance's mercantile model. See James E. Vance, Jr., The Merchants World: The Geography of Wholesaling (Englewood Cliffs: Prentice-Hall, 1970).

²²Of the smaller city banks, five of them were in the Maritimes, three in Quebec, four in Ontario and one in the West. They did not have a very long life on the whole, their average period of existence being 24 years, while those formed in Toronto and Montreal during the same period lasted an average of 38 years.

generally depressed period 1871-1900 were created between 1871 and 1874 inclusive (16 out of a total of 24). Between 1869 and 1873, there occurred an exceptional, but short-lived, period of economic growth.²³ There appeared a pronounced and relatively sudden "call for more facilities from the borrowers' side, and from the investor's view an opportunity for new banks."²⁴ In comparison with the situation between 1900 and 1910, the large commercial banks (largely Toronto and Montreal-based) did not expand their facilities to meet the need (see Table 5-11). Between 1869 and 1874, the banks expanded their branches from 147 to 230, an increase of 56 per cent. Between 1899 and 1904 (the initial years of the wheat boom), they created 482 new branches, an increase of 73 per cent from a considerably larger base. During the interval between these two periods of rapid expansion of demand, the banks had become better able, or at least more willing, to expand into gaps in the market and thereby pre-empt the arrival of new banks.²⁵

²³Part of the pronounced increase in trade and speculation throughout the commercial world which preceded the economic crisis of 1873.

²⁴Roeliff Morton Breckenridge, The History of Banking in Canada, Senate Document No. 332, 61 Cong., 2nd session (Washington: Government Printing Office, 1910), p. 112.

²⁵The immediate relationship between cause and effect is difficult to isolate; the new institutions may have pre-empted branch expansion, or the relative lack of branch growth may have induced the creation of new institutions.

It might be suggested that a governmentally maintained monopolistic situation affected the arrival of new banks and that changes in the political winds resulted in a temporal variation in the formation of new banks. However, the constraints on the growth of new banks appear to lie elsewhere. Throughout the period, many more charters were granted than the number of viable new banks. Breckenridge could comment during a period when the number of new

TABLE 5-11 The Growth of Branch Banks in the Provinces and Territories of Canada, 1869-1908

Area	1869	1874	1879	1884	1889	1894	1899	1904	1908
Ontario	100	148	188	174	231	263	321	549	918
Quebec	28	39	45	50	60	102	113	196	311
New Brunswick	6	11	13	30	32	29	34	49	58
Nova Scotia	13	27	34	51	47	58	74	101	104
Prince Edward Is.	0	0	8	10	6	6	9	10	16
British Columbia	0	4	4	3	9	12	41	55	103
Manitoba	0	1	3	15	13	24	50	95	162
Northwest Terr.	0	0	0	2	4	8	19	87	252
Yukon	-	-	-	-	-	-	2	3	3
All Canada	147	230	295	335	402	502	663	1145	1927

Source: Roeliff Morton Breckenridge, The History of Banking in Canada, Report of the National Monetary Commission, Senate Document N. 332, 61st Congress, 2d Session (Washington: Government Printing Office, 1910), p. 162.

The overall locational trends in banking around the turn of the century are most aptly shown by the actions of the Merchants Bank of Halifax and the Bank of Nova Scotia. In 1900, the Bank of Nova Scotia moved its General Manager²⁶ from Halifax to Toronto even though, as a sop to local pride, it left the titular head office in Halifax. By this move, the overall control of 21 million dollars in assets was transferred to Toronto.²⁷ In 1901, the Mercantile Bank of Halifax even more totally changed its identity in its transformation into a metropolitan bank. It rechartered itself as the Royal Bank of Canada and moved its headquarters to Montreal and in doing so transferred the control of 18 million dollars in assets.²⁸ The Royal Bank, like the Merchants Bank, had almost closed when two of Nova Scotia's major companies went into receivership. It made the conscious decision to become a national and international²⁹ banking concern, in order that

banks was in decline, that "entry into the field of issue banking is free in Canada to whomsoever cares to enter it, provided only that he or his backers have the cash. If the newcomer, once chartered and established, finds his way beset with difficulties, the circumstance is to be explained not by any monopoly, which his older competitors enjoy, but rather by their hold upon the confidence of their clientele, and their possession of a volume of business which enables them to serve their customers at rates of profit which, derived from transactions of smaller bulk, would be consumed for the most part by expense" (Ibid., pp. 164-165).

²⁶A position somewhat akin to the queen bee; when the general manager moves, the administrative hive goes with him.

²⁷Canada Department of Finance, Returns of the Chartered Banks of the Dominion of Canada, July 31, 1900 (Ottawa: Queen's Printer, 1900).

²⁸The Royal Bank of Canada, Bank of the Seven Merchants (Montreal, 1962) and Canada Department of Finance, loc. cit.

²⁹Both the Bank of Nova Scotia and the Royal Bank expanded greatly in the Caribbean. In 1898 and 1899, The Royal Bank was

TABLE 5-12 Distribution of Branches of Montreal and Toronto Banks, 1925 (as of December 31st)

City and Banks*	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C. & Other		Total
									Yukon	Countries	
Bank of Montreal	1	14	14	112	224	37	58	63	44	16	583**
Provinciale	3	-	15	98	17	-	-	-	-	-	133
Royal	7	63	24	66	250	80	147	82	54	126	899
Canadienne Nat.	-	-	-	211	20	10	7	6	-	1	255
MONTREAL	11	77	53	487	511	127	212	151	98	143	1870
Nova Scotia	9	38	36	19	126	8	14	5	6	38	299
Bank of Toronto	-	-	-	11	90	10	35	9	5	-	160
Commerce	7	20	6	63	169	49	87	53	56	16	526
Dominion	-	-	1	5	86	11	5	5	3	2	118
Standard	-	-	1	1	161	10	10	17	19	1	210
Imperial	-	-	-	2	92	7	22	23	13	-	159
TORONTO	16	58	44	101	724	95	173	112	102	57	1472

*Weyburn, Sask., and the Weyburn Security Bank are omitted (This bank controlled 26 branches, all in Saskatchewan).

**Sub-agencies are omitted.

Derived from data of the Canadian Bankers' Association, published in Benjamin H. Beckhart, The Banking System of Canada (New York: Henry Holt and Co., 1929), p. 359

it would not be shaken in future by local losses. In order to pursue this goal, they were confronted with the weaknesses of their head office location. Two main underlying reasons for its move, and that of the Bank of Nova Scotia, might be hypothesized. One hypothesis might hold that the head office moved to be more central to the market for banking services, an explanation characteristic of "central place theory." Such an explanation holds that they were attempting to reduce the friction of space in servicing the market. Another explanation could be that they moved in order to be closer to the "raw materials" of their business--information. If the financial community and associated administrative function of Halifax had been larger (relative to the other alternative sites) and possessed a larger system of external contacts, which thus increases the number of potential person-to-person contacts,³⁰ they may have been able to continue operating successfully a national and international banking concern from Halifax. In this interpretation, "threshold" is not the determining factor, but the economies which emanate from the clustering of linked activities. If these banks had remained in Halifax, it is quite likely that the competition of Toronto and Montreal banks would have severely limited their expansion, even in the Maritimes. The

appointed the official agent of the government of the newly independent Cuba, and it even opened a short-lived branch in Vladivostok in 1919. Led by these two institutions, Canadian banks in 1925 had 200 overseas branches (more than all the banks of the United States--foreign domination seems to be a partisan thing!), 140 of them in the West Indies and Central and South America (Ibid., p. 10) and Benjamin H. Beckart, The Banking System of Canada (New York: Henry Holt and Co., 1929), p. 365.

³⁰Richard L. Meier, A Communications Theory of Urban Growth (Cambridge: The M.I.T. Press, 1962).

TABLE 5-13 Classification of Bank Loans, October 31, 1936
(in \$ million)

Agriculture (including grain)	118	Railways and public utilities	8
Forestry	65	Merchandising	116
Mining	7	<u>FINANCIAL</u>	<u>283</u>
Fishing	8	Municipal and school districts	92
Construction	24	Other loans	83
General Manufacturing	130		
		Total Canadian Bank Loans	934

Source: J. Douglas Gibson, "The Trend of Bank Loans and Investments in Canada," in J. F. Parkinson, ed., Canadian Investment and Foreign Exchange Problems (Toronto: University of Toronto Press, 1940), p. 159.

superior information environment of the metropolitan banks and the depreciation of the role of space by the branch system and improved communications facilities would have made the metropolitan banks very formidable competitors.

By 1920, the non-metropolitan banks had become a rare species. Eighty-three per cent of the Canadian banks were located in Toronto and Montreal and they controlled 92 per cent of the total banking assets. By 1930, only the wayward, but well run, Weyburn Security Bank held out, but after subtracting its share of the banking assets 99.8 remained for the banks in the two eastern centers. After the demise of the western lilliputian in 1931, banking head offices were totally centralized.

Throughout the period 1871-1960, Montreal remained the largest banking center in Canada (see Table 5-9). After 1900, the ratio of Toronto's to Montreal's banking assets was usually around 1 to 1.3.

By the turn of the century, the large metropolitan banking corporations, utilizing their in-house intermediaries--the branches and the relatively high capacity communications system of the two metropolises, were able to exercise fairly direct control of banking across Canada's 4,000-mile breadth. Their initial advantages with regard to size, stability, access to a broad information gathering network, external linkages to the broader financial community, and position in what remained the largest market for financial services, enabled them to exercise a competitive advantage over extreme distances. Competition did arise on the often explosively expanding frontier but it failed. Through the 56 years after the ending of the frontier stage of western development, no local independent banks

arose to serve the sizeable western market as the Grasian thesis suggests might be the case.³¹

b. The Changing Distribution of Insurance
Company Headquarters

The insurance industry does not exhibit the same centralizing tendency as the banks. Throughout the period, cities outside of Toronto and Montreal never acquired more than 20 per cent of the total number of insurance companies in Canada, nor more than 30 per cent of the assets³² (see Tables 5-14 and 5-15). But, unlike the banks, the trend after 1900 was a decentralizing one. The growth in insurance company assets was proportionately greater in the centers outside of Toronto and Montreal than in these cities. As can be seen from Table 5-14, most of these assets held by non-metropolitan companies were possessed by companies located in London, Ottawa, Kitchener-Waterloo, and Winnipeg, and mainly by very large life insurance companies.³³ After 1900, these big companies situated in what might be considered minor insurance centers grew to an extent which caused a relative dispersal of insurance company assets away from Toronto and Montreal, despite the fact that the relative proportion of insurance companies located inside and outside the two metropolitan centers was relatively

³¹In July 1968, the Bank of British Columbia opened its doors in Vancouver with considerable assistance from the government of British Columbia. A similar recent attempt to establish the "Bank of Western Canada" in Winnipeg failed. See The Toronto Globe and Mail, July 29, 1969.

³²Allocated by Canadian head office location.

³³Life insurance companies as a rule possess many more assets than do fire and casualty insurance companies.

TABLE 5-14 The Distribution of Insurance Companies by Number and Assets Among the Cities and Towns of Canada, 1881-1950^{1,2}

City or Town	1881			1890			1900			1910			1930 ³			1950		
	Total number of companies	Total assets \$,(000)	Total number of companies	Total assets \$,(000)	Total number of companies	Total assets \$,(000)	Total number of companies	Total assets \$,(000)	Total number of companies	Total assets \$,(000)	Total number of companies	Total assets \$,(000)	Total number of companies	Total assets \$,(000)	Total number of companies	Total assets \$,(000)	Total number of companies	
1. Montreal	30	8,127	51	31,233	46	73,173	57	134,150	116	778,931	126	2,367,344	1.					
2. Toronto	16	6,091	25	14,057	30	53,644	58	128,446	153	609,701	173	1,779,633	2.					
3. Halifax	1	115	1	293	-	-	3	1,081	2	2,091	2	9,233	3.					
4. Quebec	1	141	1	238	1	194	1	503	1	743	1	752	4.					
5. Sherbrooke	-	-	-	-	-	-	-	-	-	-	-	2,061	5.					
6. Ottawa	-	-	-	-	2	1,156	4	7,364	3	209,161	4	553,370	6.					
7. Hamilton	4	4,979	4	11,433	2	1,381	2	4,055	2	1,797	4	1,641	7.					
8. London	1	287	2	640	3	1,597	3	5,316	5	74,536	3	381,754	8.					
9. Kitchener-Waterloo	1	337	2	1,778	2	5,705	2	18,454	3	142,279	4	393,468	9.					
10. Winnipeg	-	-	-	-	2	1,156	4	9,713	15	89,001	15	452,442	10.					
11. Regina	-	-	-	-	-	-	-	-	1	2,205	2	5,155	11.					
12. Vancouver	-	-	-	-	-	-	2	710	13	5,243	16	18,767	12.					
13. St. John, N.B.	1	100	2	173	-	-	2	185	-	-	-	-	13.					
14. Pictou	-	-	-	-	-	-	-	-	1	39	1	107	14.					
15. Galt	-	-	-	-	-	-	-	-	-	-	1	4,778	15.					
16. St. Thomas	-	-	1	50	-	-	-	-	-	-	-	-	16.					
17. Coburg	1	137	-	-	-	-	-	-	-	-	-	-	17.					
18. Granby	-	-	-	-	-	-	1	31	-	-	-	-	18.					
19. Rimouski	-	-	-	-	-	-	1	342	-	-	-	-	19.					
20. Richmond	-	-	-	-	-	-	1	65	-	-	-	-	20.					
21. Wawanessa	-	-	-	-	-	-	1	220	1	1,430	1	12,642	21.					
22. Antigonish	-	-	-	-	-	-	-	-	1	21	1	83	22.					
23. Portage La Prairie	-	-	-	-	-	-	-	-	1	144	1	2,153	23.					
24. St. Hyacinthe	-	-	-	-	-	-	-	-	1	1,050	2	11,941	24.					
25. Yarmouth	-	-	1	22	-	-	-	-	-	-	1	-	25.					
26. Pugwash	-	-	-	-	-	-	-	-	1	1	9	1	24	26.				

¹Includes those companies operating under Dominion charter and conducting inter-provincial business. Both domestic and foreign companies are included, but only those assets of foreign companies which are held in Canada are included in the tabulation. Assets are allocated to the city in which the company is headquartered (in the case of foreign companies, the Canadian headquarters).

²Figures do not include fraternal benefit societies.

³After 1910, figures are given for 20 year periods. This is unfortunately necessary because the large amount of time required to allocate the assets of particular companies to the various cities is not warranted by the additional return.

⁴Halifax's sole insurance company moved to Toronto by 1900.

⁵Two of St. John's insurance companies moved to Toronto by 1900.

⁶This company moved to Toronto between 1881 and 1890.

Source: compiled from statements filed by the various insurance companies with the Superintendent of Insurance (Report of the Superintendent of Insurance, 1881, 1890, 1900, 1910, 1930, 1950, Ottawa: Queen's Printer).

TABLE 5-15 Montreal and Toronto Insurance Companies Compared, in Terms of Number and Assets, to Those of Other Cities and Towns of Canada

	1881	1890	1900	1910	1930	1950
1. Toronto and Montreal assets (,000)	14,218	45,290	126,817	262,596	1,388,562	4,146,977
2. Other cities assets (,000)	5,809	13,988	9,592	42,723	455,704	1,468,093
3. Total assets (,000)	20,027	59,278	136,409	305,319	1,844,366	5,636,186
4. % 1 is of 3	71.0	76.4	93.0	86.0	75.3	73.6
5. Number of insurance companies in Toronto and Montreal	54	76	76	115	291	301
6. Number of insurance companies in other centers	6	12	9	24	46	45
7. Total number of insurance companies	60	88	85	139	337	346
8. % 5 is of 7	90	86.4	89	82.7	86.3	87.0

Source: Table 5-14.

unchanged. As can be seen from Table 5-16, the Canadian branches of British insurance companies were, with the exception of two in Halifax, located in Montreal and Toronto. To a slightly lesser extent, the branches of United States firms displayed a similar tendency to locate in the two large centers. British firms continued to show a strong tendency to locate in Montreal, while the American firms displayed a somewhat greater propensity to settle in Toronto.³⁴ The foreign branch companies were considerably smaller than the domestic ones throughout the period. The average amount of assets possessed by Canadian branches of British companies was 1,123,730 dollars, while that of domestic firms was 2,520,500 dollars.³⁵ Because of the relatively smaller size of the Canadian branches of foreign firms, they possessed a greater need for external linkages. This could be one

³⁴There is little support to be found in the distribution of Canadian branch head offices of American insurance companies during this period, for Michael Ray's intervening opportunity and economic shadow interpretation of the distribution of U.S. branches in Canada (D. Michael Ray, Market Potential and Economic Shadow, Department of Geography, Research Series No. 101, University of Chicago, Chicago, 1965). For example, New England companies show no distinct preference for a Montreal location despite the fact that Toronto would be located in the economic shadow of Montreal according to the Ray schema. American companies located west of Toronto have displayed no pronounced preference for that city. Some basis may be made for the general hypothesis in the case of British companies. However, it could be that a better explanation of the Montreal orientation of the British firms lies in a migration model similar to that of Hagerstrand and Morrill.

It is typical throughout North America that the original domestic companies started in smaller places and remained there, but that branches introduced from outside would be placed in a major city. Places such as Hartford, Springfield (Mass.), Worcester, Des Moines, Omaha, and Dallas remain dominated by indigenous companies.

³⁵These figures are for fire, marine, and life firms only. These constituted over 90 per cent of the assets of all insurance companies (from Report of the Superintendent of Insurance--1910, Ottawa: Queen's Printer).

TABLE 5-16 The Distribution among Selected Canadian Cities of British, American, and Canadian Insurance Companies* Which Operated in Canada Between 1881 and 1910

	<u>No. Br. %</u>		<u>No. U.S. %</u>		<u>No. Can. %</u>	
Montreal	40	47	27	32	18	21
Toronto	15	19	23	30	30	51
Hamilton	0	0	1	17	5	83
St. John, N.B.	0	0	2	40	3	60
Halifax	3	60	0	0	2	40
Winnipeg	0	0	0	0	4	100
Ottawa	0	0	2	50	2	50
London	0	0	0	0	4	100
Kitchener-Waterloo	0	0	0	0	2	100

*Fire, marine, and life only.

Source: Compiled from statements filed by the various insurance companies with the Superintendent of Insurance. Report of the Superintendent of Insurance, 1881, 1890, 1900, 1910 (Ottawa: Queen's Printer).

reason why they showed a greater tendency to locate in Montreal and Toronto than did the domestic firms. This difference should not be overemphasized, however, for most of the domestic firms were located in Toronto and Montreal. One of the reasons why the assets of Toronto-based insurance companies increased so markedly between 1890 and 1900 was the move from Hamilton of the Canada Life Insurance Company which possessed 22 million dollars in assets by 1900. Even though insurance in general had somewhat less need for ready access to the intensive information net of the financial community than do many other financial functions (see Chapter II), most companies opted to locate or remain in the metropolitan centers:

c. The Changing Distribution of the Securities Industry

The vast majority of stock and bond trading has been jointly shared by Montreal and Toronto throughout the period, although the superior position has gradually shifted from Montreal to its western neighbor. By 1958, the Toronto and combined Montreal-Canadian exchanges accounted for over 97 per cent of the dollar volume of the stocks traded in Canada.³⁶ Of this, 67 per cent took place on the Toronto exchange and 32 per cent on the Montreal ones. It is commonly acknowledged that the crash of 1929 and the ensuing depression struck Montreal brokerage houses and securities listed on her exchanges more severely than those of Toronto. A central reason was that many of Toronto's listings were those of gold mines, the securities of which

³⁶James E. Walter and J. Peter Williamson, "Organized Securities Exchanges in Canada," The Journal of Finance, Vol. 15, no. 3 (Sept. 1960), p. 309.

TABLE 5-17 Statistics of the Toronto, and Montreal and Canadian Stock Exchanges, 1935-1959

Year	Toronto Stock Exchange		Montreal and Canadian Stock Exchanges	
	Quoted market values (billions of dollars)	Value of all shares traded (millions of dollars)	Quoted market values (billions of dollars)	Value of all shares traded (millions of dollars)
1935	4.55	28.7	7.33	-
1936	6.45	58.3	8.50	-
1937	4.65	54.2	6.83	48.6
1938	5.06	37.0	7.48	22.0
1939	4.77	24.4	7.01	18.0
1940	3.92	11.0	7.20	7.9
1941	3.66	6.9	6.81	4.5
1942	3.36	4.9	6.22	3.7
1943	4.46	15.2	7.10	9.2
1944	5.00	22.2	7.16	10.9
1945	6.36	51.5	7.89	23.7
1946	7.42	62.4	9.30	39.2
1947	7.14	38.7	9.08	24.4
1948	7.31	36.6	8.87	27.8
1949	7.24	37.7	8.26	24.9
1950	8.88	75.2	8.97	55.2
1951	11.79	97.9	11.46	67.1
1952	16.42	92.5	15.31	49.5
1953	20.36	95.3	18.07	42.5
1954	27.38	112.5	24.09	63.8
1955	40.12	224.9	35.35	96.8
1956	45.26	209.2	42.49	96.6
1957	45.23	155.5	43.90	62.2
1958	43.14	125.5	41.42	61.7
1959	50.58	155.0	48.08	75.2

Source: M. C. Urquhart and K. A. H. Buckley, Historical Statistics of Canada (Toronto: The Macmillan Co., Ltd., 1965) Series H631-650.

usually increase in value with deflationary movements in the economy. By 1937, Toronto's exchange had clearly surpassed the Montreal ones in the value of shares traded. (It had long before surpassed them in the number of shares traded, largely as a result of the mining boom after the turn of the century.) The market value of listed shares, however, remained in Montreal's favor until 1950 (see Table 5-17).

Even before the Depression, there were several indications that Toronto had overtaken Montreal in the securities brokerage field. In 1921, for example, Toronto could claim over three times as many security brokers as Montreal (see Table 5-18).³⁷ A further indication is the head office distribution of brokers offering investment trusts

TABLE 5-18 Number of People Listing Their Occupation as Stock and Bond Broker in Selected Canadian Cities, 1921-1941

City	1921	1931	1941
Montreal	157	341	238
Toronto	582	741	559
Quebec	12	49	17
Ottawa	19	66	29
Hamilton	52	46	40
Winnipeg	112	88	69
Vancouver	166	191	169

Source: Census of Canada, 1921, 1931, and 1941.

³⁷As a measure of the financial decision-making authority, this has its weaknesses, for many of the people listed as securities brokers are "front office" men serving as "retailers" in the secondary market and not a part of the research and primary flotation activities of the major brokerage houses.

in Canada. Toronto's brokers clearly dominated this field as early as the late '20's (see Table 5-19). Most securities which are traded are bonds, not stocks, and are bought and sold through the intricate telephone net of the brokerage houses. While it is not possible to isolate the amount of this activity taking place in the several Canadian cities through this time period, it is noteworthy that the Bank of Canada which became "the dominant factor in the high-grade bond market"³⁸ found it necessary to locate most of its important operational activity in Montreal and Toronto.

The lesser security markets in Canada have been largely concerned with mining and oil securities, and especially those of a speculative nature. Of the exchanges outside Toronto and Montreal, only Vancouver has met with considerable success. In 1958, all exchanges outside the two eastern cities accounted for only 2.6 per cent of the total volume traded, and Vancouver accounted for most of that. Since 1958, the western city's position has improved still further. Its enhanced position in the mining market is to a considerable extent attributable to the relatively recent expansion of mining in British Columbia, a 3-hour difference in trading times, and a ready adaptation of regulations to accommodate speculative shares.³⁹ The Vancouver intermediaries have been successful in attracting funds from considerable distances. About 65 per cent of business on the Vancouver exchange comes from outside British Columbia and probably half of

³⁸The Investment Dealers' Association, Brief to the Royal Commission on Banking and Finance, June 1962, Vol. 1, p. 13.

³⁹Toronto Globe and Mail, Wednesday, Jan. 1, 1969, p. B5.

TABLE 5-19 The Geographic Distribution of Brokers Offering Shares in Investment Trusts* in Canada, 1926-1933**

Canadian Investment Trusts					
Head Office of Broker Offering the Investment Trust.....	Montreal	Toronto	Winnipeg	Vancouver	Other
Number	22	32	1	1	2

American Investment Trusts Sold in Canada					
Head Office of Broker Offering the Investment Trust.....	Montreal	Toronto	Winnipeg	Vancouver	Other
Number	8	20	0	0	0

*Investment trusts are companies which use their resources to buy securities of various kinds with the object of distributing the income derived to their shareholders.

**Includes all important management investment trusts which were offered in Canada between 1926 and 1933 inclusive.

Source: Compiled from data in Donald B. Wallace, The Investment Trust in Canada, M.A. thesis, University of Toronto, 1934, Appendix A, "Classified Directory of Canadian Management Investment Trusts".

that comes from Toronto.⁴⁰ As will be pointed out below, long-range movement of investment funds is, in part, a reflection of the entropy in the information supply concerning speculative securities such as those of small mining firms (as well as trading in interlisted stocks after the regular trading hours of the exchanges in the Eastern Time Zone).

d. The Changing Distribution of Trust and Loan Companies, Caisses Populaires, and Credit Unions

The trust and loan corporations in large measure were the offspring of the building societies and their incorporated brethren, the building companies. They arose out of the desperate need for mortgage funds, both for urban and rural construction during the expansive periods in the Province of Canada and their initial distribution reflected this. In the first place, the majority of the institutions arose in Canada West, where most construction was taking place and the demand was high for mortgage funds, for the secondary stages of farm development and for urban expansion.⁴¹ This lasted until the 1880's when the urban economy stagnated for several years and the financial position of the eastern farmer changed to the point where they were paying off mortgages or, if borrowing, doing so for the purpose of

⁴⁰Toronto Daily Star, April 22, 1969, p. 4.

⁴¹In addition, Quebec law operated against mortgage business "by making a sheriff's sale cancel all liens on property, thus throwing on the mortgagee the obligation of watching constantly lest his security be sold without his knowledge for less than sufficient to cover the mortgage" (Massey Morris, "The Land Mortgage Companies, Government Savings Banks and Private Bankers of Canada," J.C.B.A., Vol. 3, no. 3 (April 1896), p. 238.

securing additional land to farm.⁴² The distribution within Ontario also reflected this orientation to mortgages. The institutions were more scattered than was the case with the other major financial institutions. Their interests were originally local, and they existed largely to fill a gap created by the restrictions on bank's loaning on the security of land. They became recognized channels of investment and were able to market debentures in Britain. With the opening of the prairies, the formation of new companies in Winnipeg and elsewhere in the West was somewhat restricted considering the enormous amounts of funds which flowed to this region through mortgage companies.⁴³ Unlike the situation in pre-Confederation Canada, the intermediaries providing long-term credit to western farms were mainly at the source of the funds in Canada or functioned in eastern Canada as an intermediary in the channeling of British and European funds to the prairies.⁴⁴ In the earlier period, they were located at, or near, the market. This is probably a reflection of inertia, the diversification of the loan companies into other fields of investment, the increasing importance of the trust business, the links developed with other financial institutions in eastern Canada, as well as the ease with which organizational information could be channeled from the West

⁴²Monetary Times, Vol. 15 (1880-81), p. 39.

⁴³Funds from institutional investors bulked larger in the West than they did in the East, where individual investors began to compete heavily with the loan companies (W. T. Easterbrooke, Farm Credit in Canada, Toronto: University of Toronto Press, 1938, pp. 50-51).

⁴⁴The corporate title of the "Manitoba and North West Loan Co." with head office in Toronto well illustrates the trend.

to the Canadian core. The survival rate of those institutions which did arise in the West was very poor. In 1910, there were 11 trust and loan companies in Winnipeg and 2 in Vancouver, but by 1960 there were no trust companies in either city or west of Ontario, for that matter, and only six small loan companies (five in Winnipeg and one in Moose Jaw) which possessed less than a mere 1½ per cent of the total assets of Canadian loan companies⁴⁵ (see Table 5-20). Between 1890 and 1960, the percentage of assets held by Toronto and Montreal trust and loan corporations went from 57 per cent to 77 per cent, indicating that in this field also, the long-range trend has been a centralizing one.

Private banking operations in Canada were relatively insignificant as financial institutions, and rarely consisted of anything more than an individual of questionable ability behind a railing in a small storefront or upstairs office. In 1896, there were 150 private bankers in Ontario, 7 in Quebec, 3 in Nova Scotia, 4 in New Brunswick, 23 in Manitoba and the Northwest Territories, and 3 in British Columbia.⁴⁶

The Credit Union and Caisses Populaire movements are relatively recent phenomena in Canada, the former much more so than the latter. As well, they are largely centered in Ontario and Quebec; in 1960, over three-quarters of the total Canadian assets being located in the two central provinces (see Table 5-21). They are largely peripheral to the main functioning of financial communities, and represent a

⁴⁵The Financial Post Survey of Industries (Toronto: MacLean-Hunter, 1961). A small Trust Co., headquartered in Lethbridge, was purchased at this time by the Canada Trust Co. of London, Ontario.

⁴⁶Massey Morris, "The Land Mortgage Companies, Government Savings Banks and Private Bankers of Canada," J.C.B.A., Vol. 3, no. 3 (April 1896), p. 262.

TABLE 5-20 The Distribution of Assets of Trust and Loan Corporations in Canada, 1890-1960 (Assets allocated to Company Head Office)

City	1890		1900		1912		1931		1940		1950		1960	
	No. of dollars	Assets in millions	No. of dollars	Assets in millions	No. of dollars	Assets in millions	No. of dollars	Assets in millions	No. of dollars	Assets in millions	No. of dollars	Assets in millions	No. of dollars	Assets in millions
Toronto	28	61.2	38	70.0	25	197.5	11	384.8	11	780.7	11	1,191.0	9	2,576.4
Montréal	6	7.2	2	8.3	4	69.8	10	1,559.3	12	1,914.0	7	2,918.0	8	3,386.1
Halifax	2	.9	3	1.5	4	11.8	6	61.8	4	67.2	4	156.0	4	369.8
Québec	2	.9	2	.6	2	.8	1	1.6	1	1.3	1	1.3	1	1.8
London	8	16.5	9	18.5	8	30.1	5	137.6	4	139.6	3	729.0	3	688.7
Hamilton	3	5.2	3	7.3	2	6.9	1	4.2	1	3.0	1	7.7	1	110.4
Ottawa	2	.3	3	.8	1	.3	2	16.2	2	14.7	1	7.7	1	44.7
Kingston	2	.6	2	.6	1	.3	1	9.5	2	10.7	3	18.4	3	36.5
Sarnia	2	2.0	3	3.0	2	4.2	3	9.5	2	10.7	3	18.4	3	36.5
Vancouver	-	-	-	-	2	3.6	1	.1	1	20.5	1	45.8	1	110.4
Waterloo	-	-	-	-	-	-	-	-	1	8.6	1	16.2	1	44.7
Stratford	1	.8	2	1.3	2	1.9	1	7.8	1	8.6	1	16.2	1	44.7
St. Catharines	1	.6	1	.5	1	.7	1	2.2	-	-	-	-	-	-
Sherbrooke	1	.2	1	.3	1	.4	1	4.1	1	6.4	1	12.8	1	24.8
Oshawa	1	.9	1	.8	1	.9	-	-	-	-	-	-	-	-
Guelph	1	1.4	1	1.6	1	2.5	2	2.7	2	10.8	-	-	-	-
St. Thomas	5	1.8	5	3.6	1	2.1	1	3.2	1	1.0	-	-	-	-
Niagara Falls	-	-	1	.1	1	-	2	3.2	1	5.6	1	16.5	1	46.0
Moncton	-	-	-	-	-	-	-	.4	-	-	-	-	-	-
Chatham	1	.3	1	.6	-	-	1	.4	-	-	-	-	-	-
Goderich	1	.2	1	.2	-	-	-	-	-	-	-	-	-	-
Brantford	1	1.2	1	1.2	1	1.6	-	-	-	-	-	-	-	-
Bellefleur	1	.3	1	.4	-	-	-	-	-	-	-	-	-	-
Brockville	-	-	1	.4	1	.4	1	1.6	1	2.7	1	5.8	-	-
Barrie	1	.2	2	.4	2	.9	-	-	-	-	-	-	-	-
Lethbridge	-	-	-	-	-	-	1	.7	1	1.6	1	3.6	1	4.0
Calgary	-	-	-	-	-	-	-	.5	1	.4	1	.5	1	.5
Moose Jaw	-	-	-	-	-	-	1	.4	1	.3	1	.6	1	1.1
Yarmouth	-	-	-	-	-	-	-	.4	-	-	-	-	-	-
Oakville	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Jean	1	.3	1	.2	-	-	-	-	-	-	-	-	-	-
Levis	1	-	1	.0	-	-	-	-	-	-	-	-	-	-
Forest	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lindsay	-	-	1	.2	1	.5	-	-	1	10.4	1	38.2	1	99.3
Peterboro	1	3.0	2	.2	3	11.9	-	-	-	-	-	-	-	-
Truro	-	-	-	-	-	-	1	5.8	1	7.7	1	11.8	1	16.2
Owen Sound	-	-	2	.5	2	.7	1	2.2	1	5.1	-	-	-	-
Petrolia	1	.1	1	.3	1	.5	1	.7	-	-	-	-	-	-
Walkerville	-	-	1	.7	1	.8	-	-	-	-	-	-	-	-
Woodstock	1	1.3	2	.7	1	.8	-	-	-	-	-	-	-	-
Winnipeg	1	1.5	2	.6	11	10.3	9	27.8	9	29.9	7	30.2	6	8.7
Windsor	-	-	-	-	-	-	1	1.2	1	10.3	-	-	-	-
St. John	-	-	-	-	-	-	1	2.8	1	2.8	1	7.4	-	-
Wawanesa	-	-	-	-	-	-	1	.1	-	-	-	-	-	-
Kelowna	-	-	-	-	-	-	1	.7	1	.7	-	-	-	-
Regina	-	-	-	-	-	-	1	.7	1	.7	-	-	-	-
Port Hope	-	-	-	-	-	-	1	3.2	1	3.1	-	-	-	-

Data 1890 - 1910 from Report of the Loan Companies and Building Societies in the Dominion of Canada for the year 1890 (Ottawa: Queen's Printer)*.

Data 1931 - 1960 from The Financial Post Survey of Industrials (Toronto: Maclean-Hunter Publishing Co.).

*The Dominion Government ceased publishing these reports after 1910, trust and loan companies falling primarily under provincial jurisdiction. The Financial Post commenced its coverage of trust and loan companies in 1934, and this issue contains 1931 data.

TABLE 5-21 The Distribution of Caisses Populaires and Credit Unions in Canada, 1910-1960

Date	Maritimes		Quebec and Ontario		Western Canada		Total	
	No.	Assets \$ million	Credit Unions Assets \$ million	Caisses Populaires Assets \$ million	No.	Assets \$ million	No.	Assets \$ million
1910				50*	.2			
1920				113	6.3			
1930				150*	11.2			
1940	377	1.4	67	1.9	549	21.2	161	.4
1950	521	10.9	530	28.8	1,088	234.5	820	34.7
1960	507	34.3	1,795	263.6	1,234	738.8	1,116	244.1
							1,154	24.9
							2,877	309.0
							4,661	1,280.7

*Estimate contained in work cited below.

Compiled from data in Gilles Mercure: Credit Unions and Caisses Populaires, working paper prepared for the Royal Commission on Banking and Finance (November 1962), pp. 13 and 32.

co-operative and tax-exempt means of filling gaps at the lower end of the financial spectrum, neglected by the larger financial intermediaries and in that sense follow in the tradition of the early savings banks, the postal savings system, and the private banks. The credit union system tends to be a closed system and, probably more than any other financial sector, is divorced from the broader financial community.⁴⁷ Their effect on the various financial communities in Canada is probably a negative one to the extent that they divert some savings and personal loan business away from other institutions. One might hazard that this negative effect has had slightly greater impact on the Montreal banks.

By 1900, with the major westward expansion just getting under way, Toronto and Montreal were almost exactly parallel in terms of the assets of their major financial intermediaries. Toronto's institutions possessed assets of slightly over 260 million dollars, whereas Montreal's possessed assets of slightly over 280 million dollars.⁴⁸ Kerr states that "Toronto's growth, as a rival of Montreal, was influenced largely by land development on the prairies and the discovery of minerals on the Shield."⁴⁹ This latter event certainly did increase

⁴⁷ See Peter McClelland, "The Canadian Capital Market," in The Canadian Banker, Vol. 70, no. 2 (Summer 1963), pp. 87-88; Gilles Mercure, Credit Unions and Caisses Populaires, working paper prepared for the Royal Commission on Banking and Finance, Nov. 1962 (Ottawa, 1962); and Richard Arès, Les Caisses Populaires et la Communauté Canadienne-Française (Montreal: Editions Bellamin, 1961).

⁴⁸ Total of bank, insurance, and trust and loan companies.

⁴⁹ Donald Kerr and Jacob Spelt, The Changing Face of Toronto, Memoir II, Geographical Branch Department of Mines and Technical Surveys (Ottawa: The Queen's Printer, 1965); also in R. Louis Genticore, Canada's Changing Geography (Toronto: Prentice-Hall, 1967), p. 170.

Toronto's financial stature. But, it is not at all apparent there was any more direct benefit to Toronto from financial activity in the West than to Montreal. From the above statistics, the gap between the two had almost been closed by 1900, before the full impact of the "wheat economy." It is contended that the somewhat greater rate of growth of Toronto's financial community after 1900 is primarily attributable to this city's acquisition of mining finance and not to prairie land development. In fact, during the period 1900-1910, trust and loan companies, organizations which should benefit most from land development, increased their assets 88 per cent in Montreal, but the Toronto-based ones only increased their assets by 54 per cent (see Table 5-20). Thus, with regard to the differential growth of Montreal's and Toronto's financial communities, mining finance plays a central role. But, even more interesting than the differing growth rate of these two centers (and the central theme of the chapter) is the collective relationship of the financial intermediaries of the two core cities to the opening frontier to the north and the west.

3. The State of Communications Between Montreal and Toronto, and the Canadian Periphery

The communications facilities between central Canada and the Canadian frontier was in marked contrast to those existing within the Province of Canada before the mid-nineteenth century, despite the great increase in the distances involved. The American railroads, the Canadian Pacific Railway, and the later developmental railroads permitted quite rapid delivery of mail.⁵⁰ The C.P.R. enabled mail

⁵⁰Prior to the C.P.R., mail was sent in closed bags via

and passengers to be delivered in Winnipeg in three days (see Table 5-22).⁵¹

By the 1920's mail was flown between railheads and centers on the mining frontier such as Rouyn-Noranda and Red Lake. Later in the 1920's, experimental air mail shipments were made across the prairies and from Montreal to Ottawa and Toronto.

Most significantly, the telegraph enabled relevant financial data and news to be transmitted almost instantly from the mining areas of British Columbia, the prairies, and the developing areas of the Shield. Telegraphic communication was possible from the Canadian prairies from the 1870's through the United States. Between 1880 and 1886, construction by the Great North Western Telegraph Company and the Canadian Pacific Railway provided a thorough coverage throughout almost all the Dominion. Even in remote areas of the Northwest Territories, where private companies would hardly be justified, the Dominion government operated lines, and by 1897 it had 2,548 miles of line serving such localities.⁵² At roughly the same time, Melvin Bell's Bell Telephone Co. of Canada extended services to every part

Minneapolis and Pembina to Winnipeg, and mail to Victoria went via San Francisco on Canadian government subsidized steamships to Victoria. As late as 1858, mail from New Brunswick to Vancouver Island had to be sent via Great Britain (A. W. Currie, "The Post Office Since 1867," C.J.E.P.S., Vol. 24, no. 2 (May 1958), pp. 241-242; also Murray Campbell, "The Postal History of Red River, British North America," in Papers, Historical and Scientific Society of Manitoba, Series 3, no. 6 (1951), p. 19.

⁵¹The trains contained a postal car and mail clerks in charge, which considerably speeded mail handling.

⁵²Charles P. Dwight, "History of Canadian Telegraphy," in J. Castell Hopkins, An Encyclopedia of the Country, Vol. 3 (Toronto: The Lipscott Publishing Co., 1898), p. 330.

TABLE 5-22 The Canadian Pacific Railway's Timetable--1888, Showing Elapsed Times from Montreal and Toronto to Various Western Cities

For train departing Montreal at 8:20 P.M. on day X	Distance	Arrival Time	Elapsed time from Montreal (hr., min.)
Montreal-Ottawa	120	X+1 12:01 A.M.	3 hr. 39 min.
Montreal-North Bay	364	X+1 9:55 A.M.	13 hr. 33 min.
Montreal-Winnipeg	1,423	X+3 9:30 A.M.	85 hr. 10 min.
Montreal-Regina	1,779	X+4 1:30 A.M.	101 hr. 10 min.
Montreal-Calgary	2,262	X+4 11:55 P.M.	124 hr. 25 min.
Montreal-Vancouver	2,906	X+6 1:30 P.M.	161 hr. 50 min.

Toronto-North Bay*	228	X 11:00 P.M.	9 hr. 35 min.
Delay at North Bay until arrival of the westbound train	1 hr. 20 min. total time	Toronto-North Bay	10 hr. 55 min.
Toronto-Winnipeg	1,287	X+3 9:30 A.M.	82 hr. 32 min.
Toronto-Vancouver	2,770	X+6 1:30 P.M.	159 hr. 12 min.

*Probably over Grand Trunk line, Toronto to North Bay

Derived from: Canadian Pacific Railway, Time Table (Montreal, 1888)

of the country except British Columbia. As might be expected, exchanges were primarily limited to the larger towns and the phones to business interests prior to 1900. By 1911, the telephone industry had invested 34 million in property and equipment, which made it possible to call Vancouver from the East (although at a cost of \$14.60 for three minutes, station-to-station).⁵³

In the middle of the last century in Canada, a parametric shock occurred in the communications system which greatly accelerated the rate of time-space convergence. The telegraph produced a quantum reduction in the time required to move impersonal messages, and the railway a smaller but still sizeable reduction in the time required to institute personal contact. These new conduits raised considerably the threshold of "information overload," for the financial intermediaries of Canada during the ensuing decades.

4. Financial Communities and Canadian Mining

(a) Uncertainty in Canadian Mining

The following, somewhat factual record of a conversation between a Northern Ontario mining engineer and a partner in a New York investment house, aptly points out the difficulties of investing in the ephemeral world of mining operations.

'Have lunch with me' suggested the banker, 'using a Wall Street formula for spearing free information and misinformation.' 'The meal was excellent...and by the time cigars were lighted, conversation took a direct turn'....'You must have met a man named Lund in the course of your work in Canada!' 'Not L. P. Lund?' the engineer was genuinely amused. The Banker's manner hardened, and with an unfriendly note enquired 'anything wrong with him?...' 'I wouldn't care to do business with him--that's all.' 'You put some money into

⁵³M. C. Urquart, K. A. H. Buckley, Historical Statistics of Canada (Toronto: Macmillan, 1965).

that proposition of his? Is that why you ask about him?' The banker stared at his cigar. 'Well, a little.' 'You have seen the show, that's why. The districts no damn good, and the fellow is just a plain thief, down here raiding money on an impossible situation.' 'But there's gold in his claims,' insisted the banker....He showed me some specimens.' 'Sure they are gold,' agreed the engineer with unctious, 'but he's carrying all of it with him in his pocket.' 'He has shown you more gold than will ever come out of the property.' 'But he has several reports and maps which show excellent prospects.' 'He has had a pamphlet printed up,' stated the mining engineer. 'He manages to find men who fall for that kind of bilge.' 'I see no more point in continuing the discussion.' With that the banker pushed back his chair.⁵⁴ (He reportedly lost \$50,000)



Come on, Suckers!

* Drawing by Irwin D. Hoffman, in Arnold Hoffman, *Free Gold, The Story of Canadian Mining* (New York: Associated Book Service, 1946), p. 342.

⁵⁴ From Arnold Hoffman, *Free Gold: The Story of Canadian Mining* (New York: Associated Book Service, 1947), pp. 364-65.

Uncertainty is particularly characteristic of mining investment. This is especially true of investment in those types of mining which are characterized by a great many small companies operating in a particular mining field. In dealing with the worth of small mines, one is confronted with a market featuring very high price volatility, a factor which can be beneficial to a speculator, if the situation is thoroughly understood. However, it requires a great amount of hard-to-get information, frequently of the "inside" variety, even to begin to understand the movement of the value of one security, let alone the shift of hundreds. The uncertainty comes from many sources; three main ones being the property (or the ability of the prospector, if an exploration company), the promoter, and the "strange" events surrounding the rise and fall of "worthless" stocks. And, of course, they are subject to all the other vicissitudes which characterize more normal financial exchanges.

The uncertainty emanating from the nature of the property can be considerable. The initial problem is finding out if the property, on which promoters are seeking financing, actually exists (and it sometimes doesn't). Such uncertainties, of course, are much reduced if the exchanges on which stock is traded are properly regulated and the state in which the transactions take place have sufficient and enforced laws against fraud. However, even with good regulation, the rule of "caveat emptor" prevails. During the early development of most mining areas, such regulation is usually lacking and this edict is applied with vengeance. It is also necessary to know the location of the property, its legal and geographical environment, who controls the surrounding properties, whether the claim has been properly staked

and filed, and whether there are any conflicting claims. One needs to understand the complex mining law of the state in which the property lies to comprehend the costs which would be required for ore transport and refining, and to appreciate the significance of geophysical and geochemical survey results. Most importantly, one needs to know the results of the drilling which delineates the extent and position of the ore body, and also to know the results of assays on various sections of it. Such information is often guarded with as much care as surrounds state secrets, which is not overly difficult because mine properties in Canada are frequently well isolated behind leagues of black fly-infested spruce swamp. The promoter and directors also require investigation. The character of the sponsor and, most particularly, any suspect past promotions need to be detected. His actions during a bear market require attention, for the more unscrupulous a promoter is, the more he is in evidence during a bull market. Directors need to be cross-checked with other concerns with which they are connected.⁵⁵

Once the new issues have been offered and the securities are being traded, there is still uncertainty--much of it unconnected directly with the mine. Much of the movement in the price of a security has little to do with the "real" worth of the mine.⁵⁶ The value

⁵⁵For an excellent treatment of the mining promoter, see Clark C. Spence, British Investments and the American Mining Frontier, 1860-1901 (Ithaca: Cornell University Press, 1958), and Poyntz Tyler, Securities, Exchanges, and the S.E.C. (New York: H. W. Wilson, 1965). Also, see Richard Pearce, "Interpreting Canadian Mining News," in J. F. Parkinson, Canadian Investment and Foreign Exchange Problems (Toronto: The University of Toronto Press, 1940), pp. 239-249.

⁵⁶See David T. Bazelon, The Paper Economy (New York: Random House, 1962).

of "low-priced mining shares is like other shares--dependent on public sentiment, but they are somewhat unique in one respect. The public sentiment surrounding Canadian mining stocks can be, and often is, the result of professional operations designed either to create speculative enthusiasm or to kill it off. Thus, by controlling market sentiment, the professionals can control market prices. For obvious reasons, such influence by professionals is most easily exercised on the securities of small mining companies."⁵⁷ Unfortunately, Mark Twain's imperishable definition of a mine as "a hole in the ground with a liar at the top" has had some validity, both a hundred years ago in the Comstock and in many mine fields of more recent vintage. In most of these mining fields, not only was a great amount of information needed to sift even a minimum of facts about investment opportunities but also it was required "in a hurry" for, in this field, opportunities have been particularly ephemeral.

Mine development in Canada has been particularly costly, and one does not finance the early development of a mine directly through banks. In addition, other offices which might put up money are few and far between. Usually, the discoverer of an ore body turns to a promoter. The process of fund raising for a mine has passed through three stages. The first involves prospecting, staking of claims, and optioning claim groups. This stage cost between 25 and 150 thousand dollars in 1947, and was usually speculative and undertaken by individuals or exploration companies. The second stage has been that of a

⁵⁷T. H. Mitchell, Canadian Mining Speculation (Toronto: McLeod, 1957).

developmental program for the purpose of indicating and outlining ore reserves, and has been usually financed by promoters or large mining groups. It required from 500 to 1,500 dollars in 1947. This stage is still quite speculative, but large capital gains are possible. As a rule, very few mining companies get beyond this stage. The third stage consists of mine preparation, plant, equipment, etc. to place the property in production and is financed by investment houses or large mining groups. This stage required one to five million dollars in 1947.⁵⁸ Ignoring the large mining companies or groups for a moment, the trend in financing from the exploration stage to production is from the individual to the promoter to the investment house. Increasingly, large companies such as the International Nickel Co., Noranda, Falconbridge, and Cominco, have formed vertically integrated organizations which conduct the work and financing through the early stages. Thus, the uncertainty connected with investment in a particular mine decreases as the mine develops and also decreases if an already established mining concern is willing and able to underwrite the risk with its already established operations.

In any given area, the development of mining tends to follow a boom psychology. A great deal of exploration takes place and the proprietors of many mines (and holes in the ground) set out seeking financing. Thus, an area, in general, frequently shows a rough parallelism in its modes of financing. This tends to influence the distribution of the financial intermediaries serving the mines.

⁵⁸Lindsley Thayer, quoted in Arnold Hoffman, *op. cit.*, pp. 334-335. Thayer was probably the most successful mine financier in Canada.

The exceptionally large amount of information necessary to reduce the equally high degree of uncertainty may be divided into two broad groups, what has been called first and second category information.⁵⁹ The first category includes what might be called financial sophistication about the workings of mining finance, knowledge about the way in which specific events in the field would affect the stock market, and how changes would affect particular companies. In general, there is little loss in the value of this type of information if it is known to everyone. The second category includes information of specific facts and events that will ultimately change the value of property. Such information cannot be predicted in advance even in a probability sense. In general, there is a great loss in the value of the information if it is known to everyone.⁶⁰ In mining finance, neither type of information is easily come by. Even the first type is usually only available to those within the mining industry or to people in financial communities who are in the business of collecting this type of information. A considerable amount can be acquired from a long time investigation of public sources such as The Northern Miner, but even more must be acquired from private contacts and personal experience. The second type of information is almost always of an "inside" variety transmitted through private contacts.

⁵⁹After Henry G. Manne, Insider Trading on the Stock Market (New York: The Free Press, 1966), Ch. 14, pp. 47-57.

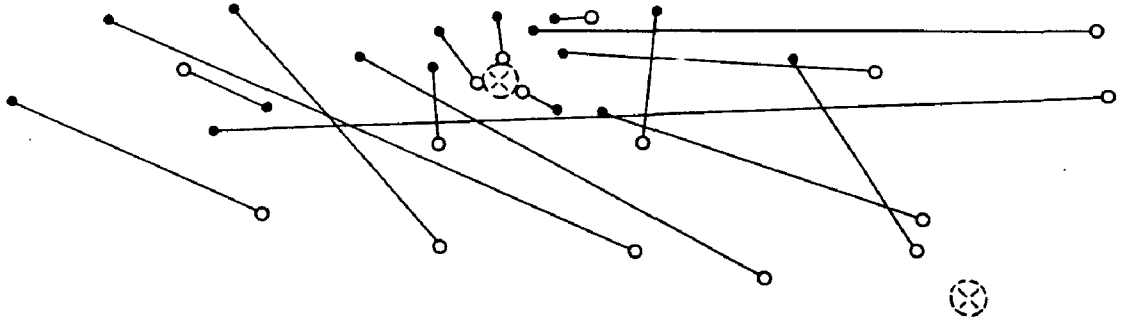
⁶⁰Ibid., p. 50.

b. The Influence of Uncertainty in Mining on the Location of Financial Intermediaries--The General Theme

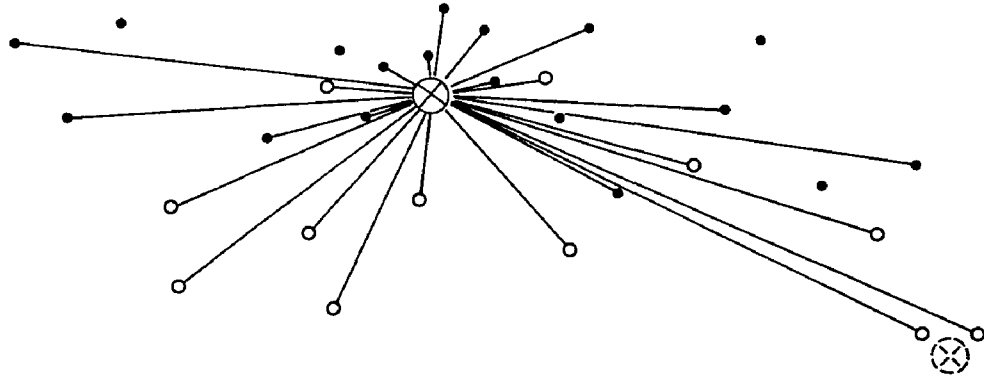
Highly simplified, the contention of this section is that the high degree of uncertainty involved in mining finance and the considerable amount of information required to reduce this uncertainty has resulted in most mining areas (especially those with a diffused pattern of control), in the financial intermediaries locating in a nearby location, at least temporarily. With the opening of a mining area to exploration and early development, there exists a large number of individuals, syndicates, and small companies all seeking financial backing. A major problem for these people is where to obtain it. Usually there is an insufficient supply locally and the financial markets which do exist are usually distant. In addition, financial organizations normally are very reluctant to put up money for an unknown commodity, even when they can discount the uncertainty at very high rates. The established intermediaries have insufficient information on a very specialized field requiring large amounts of information. As a result, the pioneering mine developers are required to seek out friends and acquaintances who would be willing to put forth money on the basis of confidence in the developer. These people may, in turn, perform the function of a financial go-between with other friends. Thus, the linkages between the mine developer and his financial backers may take a form which reflects the distribution of friends and acquaintances. There is no one center of financial intermediaries but a scattering dependent in large part on the personal information fields of the participants in the mining development (see Figure 5-1).

FIGURE 5-1 Ideal—typical Sequence of the Location of Financial Intermediaries Serving Mining

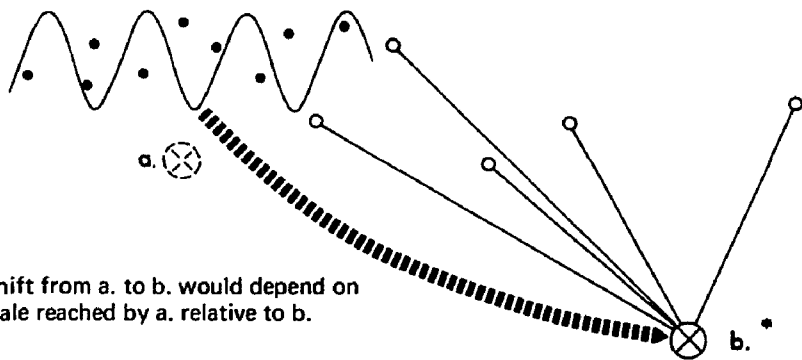
A Small operations — Links between mining operators and sources of funds dependent on private information fields



B Capital needs grow — finance becomes impersonal — market evolves near mining fields



C Capital needs grow — merger process-structuring and internalizing of information flow — financial intermediaries able to serve mines over greater distance



The shift from a. to b. would depend on the scale reached by a. relative to b.

- mining operation (explorational or operational)
- investor
- ⊗ location of financial intermediaries
- ⊗ potential location of financial intermediary
- information-capital flow
- ▬ structured information-capital flow (within organizations)

Capital needs increase, a trend which happens in both a short-range and a long-range basis. In the short run, the needs of the mining property increase as one progresses through the three stages suggested by Lindsley (see above). On a longer term basis, the costs at all stages, particularly the explorational and early development stages, have increased markedly. Time eliminates the easy surface discoveries, and capital intensive innovations are found for the detection of mineral deposits. Thus, the ability of individuals and small syndicates to risk enough money for even the initial work has become increasingly more limited.

Thus, as the mining field evolves, there is a need for broader-based financing. And, as a generalization, the later the mining field is discovered, the sooner the need arises for larger quantities of capital. The most common way of acquiring these funds is the sale of equity shares to a broader range of investors. Thus, the relationship between the suppliers and consumers of risk capital ceases to be on a personal basis. With these increasingly impersonal linkages, the uncertainty connected with investment increases, intermediaries begin to play a more important role, and they tend to locate near the mining area where the maximum amount of information is available. The information needed to reduce the uncertainty is difficult to acquire and move with the required rapidity over distance. In effect, there exists an "information overload"; the dispersion of sources in a relatively concentrated region, the restrictive time limits in which action must be taken elicit a spatial response by financial intermediaries towards a location nearer the source of the information. If the financial intermediaries are not forced to locate as a body adjacent to the

mining field, they at least must establish a considerable number of intelligence-gathering people and people who can make at least preliminary judgements and digest most of the information. H. F. Marriott has aptly expressed the role of distance in mining finance. "The assistance of the distant investor has to be evoked, but his distance from the scene of operations handicaps him in gaining an insight into the workings of the property and of taking an effective interest in the management of his affairs. He has to rely on the judgement and capacity of others."⁶¹

In addition, the already established financial communities are usually geared to financing less speculative mining or non-mining activities. While they offer a great number of potential linkages to intermediaries specializing in speculative mining, these advantages are frequently not as great as they are for some other financial functions.

Besides the financial intermediaries finding a proximate location to the mines advantageous, they also find the nearby population more willing to invest than the population as a whole. This local population, being in closer contact to both public and private information about events in the mining fields, is able to invest within an environment of greater information.⁶² The total market may be greater in other areas but not as disproportionally so as one might expect,

⁶¹H. F. Marriott, Money and Mines (London, 1925), pp. 16-17.

⁶²For a discussion on the visibility of information to local people, see W. Isard and T. Tung, "Some Concepts for the Analysis of Spatial Organization," Papers and Proceedings of the Regional Science Association, Vol. 1 (1963), p. 36. Also, see Everett M. Rogers, Diffusion of Innovations (New York: Free Press, 1962) for an overview of the way in which information diffuses and the process by which innovations are adopted.

judging from the relative personal or corporate wealth found in the respective regions. The greater exposure of local residents to the idea of investing in the nearby mining field leads to a larger per capita investment.

It is doubtful that the prospector and small mining syndicate are much of a determinant of the location of the financial intermediaries which serve them. They are willing to go considerable distances in order to find intermediaries anxious and able to float their stock. However, once financial intermediaries have established themselves at a nearby location, because of the reasons mentioned in the previous paragraphs, the possessors of mining property would be more likely to use them. This may be partly attributable to the concept of "intervening opportunity," but more likely is due to the fact that the nearby institutions can provide better service because of greater access to information and as a result engender greater confidence on the part of potential investors (again ignoring the "sucker" market).

There still remain considerable advantages for financial intermediaries dealing in mining, the promoters, the brokers, etc. to be located in a complex financial community, and if one is nearby, in all likelihood it will attract the mining specialists.

As the mining field develops consolidations typically take place, either through mergers of small companies working the field or through acquisitions by already established corporations. Because of the security of size, uncertainty is reduced. The decline in the element of risk "is due not only to recurring large scale demands for minerals and consequently frequent establishment of purchase contracts prior to development, but also to the thoroughness with which modern

exploration programs outline and prove an ore body. In this second half of the twentieth century, it is becoming increasingly evident that mine development is a sound business venture."⁶³ Moreover, the structuring of the information flows through the internal organizations of these large corporations makes information as readily available in more distant financial communities (which are frequently located near the larger mining companies head offices). Less information is needed for satisfactory investment and it can be moved more readily through the internal communications system of the corporations, thereby decreasing the advantages of nearby financial intermediaries. However, if numerous profitable internal linkages developed in the financial community located near the mining field, then mining finance may well remain there. If they have not, this function would shift over time to a more distant but larger financial community, which could provide those profitable linkages.

c. The Parallel Case of Mining Finance in the Western United States

While the primary area of concentration for the remainder of this section will be the processes involved in the location of financial intermediaries serving the Canadian mining industry, it is valuable as an introduction to look at the parallel evolution of mining finance in the United States.

The Colorado Springs Stock Exchange claims, with some justification, that it was once the largest stock exchange in the world in

⁶³ John Davis, Mining and Mineral Processing in Canada (Ottawa: Royal Commission on Canada's Economic Prospects, 1957), Appendix B, p. 355.

terms of shares traded. In 1899 it traded more than 236 million shares, boasted 236 listed and 127 member brokers.⁶⁴ San Francisco's phenomenal spree in Comstock lode securities led to the founding of the San Francisco Mining Exchange in 1862; by 1871 a volume of 128 million dollars was registered in the exchange. A seat on its floor at this time sold for 43,000 dollars or approximately what its counterpart on Wall Street was bringing in early 1954.⁶⁵ A booming exchange based largely on mining once existed in Spokane. In the mid-1950's, the most active exchange in the United States, outside New York, was to be found in Salt Lake City, where there was trading in cheap uranium and gold equities.⁶⁶ Other regional exchanges existed outside New York; there were 28 in 1929 and many of them dealt in regional issues of non-mining companies. But the brokerage function around these floors never received the impetus which mining was able to impart. An obvious need existed even as late as the 1950's for regional exchanges for mining finance in the American West. However, only San Francisco's financial community survived after the local mines petered out.

The Comstock was a prime impetus behind San Francisco's later acquisition of second-place stature as a financial center in the United States. When the "blue stuff" of the Comstock was first assayed as silver, San Franciscans rushed to provide speculative funds. However, it was apparent within a few months that the lode

⁶⁴The Wall Street Journal, August 17, 1961, p. 1.

⁶⁵Barron's, June 27, 1955, p. 3.

⁶⁶Ibid., p. 3.

could only be properly extracted by fairly large-scale enterprises with access to considerable quantities of capital, and very soon after the discovery all the main claims were in the hands of newly formed San Francisco corporations. Central in the formation and in the power structure of these corporations were the San Francisco banks, most notably the Bank of California. These banks became financial intermediaries for the Comstock, but unlike the usual case where the intermediary finds new funds for the mining development, they utilized "other peoples money" which was already in their possession.

Up-to-date information about the Comstock was concented in two centers, Virginia City and San Francisco. Control of the mines and the financial decision-making was strongly oriented to the coastal city. For example, William Ralston, the founder of the Bank of California and eventual controller of most of the Comstock mines, had placed an agent in Virginia City but "it appears that he did nothing except on the authority of the San Francisco philanthropost."⁶⁷ Some "intelligent" money was forthcoming from the East and Europe, but it was difficult to acquire without the approval of the financial community of San Francisco. Adolph Sutro sought money for his Comstock tunnel project in the older money markets and was very successful while carrying a letter from Ralston. Then the bank crowd of San Francisco turned against Sutro, Eastern and European money decided in

⁶⁷ G. M. Ostrander, Nevada: The Great Rotten Borough, 1859-1964 (New York: Knopf, 1966), p. 47. Also, see Ira B. Cross, Financing an Empire: A History of Banking in California (Chicago: J. Clarke Publishing Co., 1927), 4 v., and Joseph L. King, History of the San Francisco Stock and Exchange Board (San Francisco: J. L. King, 1910).

Mark Twain's words, that "they would look around before purchasing; if they could not find a tunnel to suit them nearer at home they would call again."⁶⁸

The socially diffuse early market for Comstock securities, the brokers serving this market, and the "bank crowd" who eventually controlled the field centered on San Francisco, and this concentration greatly enhanced San Francisco's position as a nexus for future financial activity. But why did it survive while other Western centers of mining finance languished after the boom was over? In San Francisco, the Comstock financial activity was superimposed on a pre-existing mercantile financial structure which was larger than other western financial centers before their "booms" (partly because the placer mining phase in the Mother Lode had come a decade earlier). And immediately after, other investment opportunities arose, partly as a result of the momentum generated in the San Francisco investment community, and partly as a result of the exogenous forces pushing the growth of the California economy. Finally, the spurt given by the Comstock occurred prior to 1869 and the driving of the golden spike at Promontory Point. It was sufficiently isolated from eastern financial centers, which without the considerable friction of space, may have pirated much of the less speculative types of financial activity taking place in San Francisco. The Comstock, when joined with the '49 Gold Rush, pushed San Francisco over a threshold which enabled it to maintain itself as a financial community with the assistance of the protective barrier of distance, even though this barrier was

⁶⁸Mark Twain, reporting in the Alta California.

steadily becoming less of an obstacle with communications improvements and more significantly, the advent of more secure large corporations.⁶⁹ Thus, by 1937 Willis could write that "underwriting houses, brokerage and bond firms and insurance firms have concentrated in San Francisco, until today the city transacts the greater part of the financial business of the Pacific Coast," and that "an analysis of corporate profits at certain periods would show that approximately 40 per cent of all corporate profits of San Francisco was received by the financial group."⁷⁰

d. The Canadian Case

(i) Character of the mining fields.--In Canada there have been several important groups of mineral discoveries. In the late 1850's, placer gold was discovered and publicized in the lower reaches of the Frazer, and by the end of the decade in the Cariboo and at Quesnel in British Columbia. In addition, there was an auferous quartz gold rush to Mitchell Harbour, Queen Charlotte Islands, and large base metal discoveries in the Kootenays. In 1860, gold was discovered in

⁶⁹In the last quarter of the nineteenth century, the risk factor in western mining was steadily declining with the trend towards large capital intensive mining and smelting operations. This movement reached its heyday in the immense stockjobs around 1896, with such operations as Henry H. Rogers' Copper Trust and the Guggenheim empire. The American Smelting and Refining Company, for example, represented a marked shift from more regional concerns to control from Wall Street, in this case through the brokerage house favored by Morgan, Rockefeller, and other masters of capital, and having close ties with the First National and Chase National Banks and Western Union. While the large companies were primarily smelting and refining companies, they increasingly absorbed or financed many mining properties and, as they did, the need for regionally based financial intermediaries declined.

⁷⁰Parker B. Willis, The Federal Reserve Bank of San Francisco (New York: Columbia University Press, 1937), p. 34.

Halifax County which was the start of a minor expansion of gold mining in Nova Scotia. In Ontario, some development took place prior to the turn of the century at Bruce Mines, Thunder Bay, and in southeastern Ontario, and most importantly the Sudbury ore basin was revealed in the '80's. The most significant development as far as the Canadian financial community was concerned was the discoveries at Cobalt in 1903 and subsequent developments at Porcupine, Larder Lake, Kirkland Lake, and Noranda. Coal became a significant product of northern Nova Scotia, Alberta, and British Columbia. Asbestos came from the Eastern Townships of Quebec and was first mined in 1878. This area eventually filled most of the world's markets. The Cobalt boom which commenced in 1903 was, for the most part, dominated by companies which had not previously existed. It showed most of the characteristics of a rush, such as that in the Sierra foothills in 1849. "In 1904 an influx of prospectors and mining men was reported but the rush became pronounced by July 1905 when prospectors, largely from the United States, were flocking to the locality and 'capital' was beginning to make investigations."⁷¹ In the Cobalt area in 1907, this capital was mainly American, relatively few companies being financed by English capital. Cobalt reached a peak by 1911 and by 1913 concentration of the mining properties was the established process. This camp provided a nucleus for movement into the gold resources of Porcupine and Kirkland Lake. Informational chaos reigned in the Porcupine area during its early years,⁷² and this description can aptly be applied

⁷¹H. A. Innis, Settlement and the Mining Frontier (Toronto: The Macmillan Co., 1936), p. 323.

⁷²Ibid., p. 353.

to most shield mining up until the late 1920's. Family relationships were very important in the Cobalt field; it was even called "the brothers camp." In many ways, it was similar to the trans-oceanic arrangements found in the early nineteenth century; in both cases, kinship of agents become a means of reducing uncertainty. The uncertainty inherent in investing in individual mining properties in the Cobalt and later fields undoubtedly led to the formation of the mining exchange which opened in Cobalt in 1906 and the Prospectors and Mineral Interests Exchange which was organized at New Liskard in 1907.

Cobalt was largely a camp of promoters and there were few instances of big company participation. Most of the "smart" (company) money came late. "As the camp grew, big capital became interested, but most of the choice properties were already in the possession of promoters."⁷³ The promoters (who are true financial intermediaries) were in the mining business of the shield from the start. They were purveyors of speculative funds when investment houses and boards of directors scorned Canadian mining. Kerr Lake Mines, McIntyre, Dome, Tough-Oakes, Canadian Malartic, Little Long Lac, the Negus mine in Yellowknife, and the Steep Rock iron mine are but a few examples of promotional triumphs.

The mining of the Canadian Cordillera was of two types, placer gold mining, usually requiring little capital, and lode mining operations for non-ferrous metals and coal which had varying capital demands. The Fraser gold rush was merely the transplanting of a part

⁷³Hoffman, op. cit., p. 345.

of California to a land under the British flag. Extreme uncertainty was the rule in the placer areas, but the capital needs from other than private sources were limited. The sequence with respect to the cordilleran lode mining was somewhat different from that of the Cobalt and Porcupine areas. An inrush of prospectors followed by experienced promoters occurred, but in the Cordillera there appears to have been a slightly larger component of development by large corporations and capitalists, such as the Gooderhams, the C.P.R., and Heinze. With the exception of some early small-scale operations on the western coal fields, most of the coal mining required large amounts of capital investment. For instance, the C.P.R. owned a mine at Hosmer. The Fernie property attracted large quantities of Toronto and Montreal capital. In 1912 Donald Mann (of the Canadian Northern Railway) paid nearly two million dollars for 45 square miles of the Groundhog Field, 140 miles north of Hazelton on the old Yukon Telegraph Line.

Mining in Nova Scotia by 1907 was largely coal mining performed by large-scale organizations (see Table 5-23). While there were relatively few mining companies in Nova Scotia, the capital invested was greater than in any other province. Once the mini-gold rush of the 1860's had ended, there were only a relatively few small-scale, lode gold mining operations left. In 1907, there were only 28 incorporated mines in the province and most of these were coal operations, dominated by well financed large corporations. The Acadia Coal Company in Pictou, for example, was associated with Sir H. Montague Allan and J. Pierpoint Morgan, and the Dominion Coal Company in Glace Bay had an equal stature.⁷⁴

⁷⁴Canadian Department of Mines, Report on the Mining and Metallurgical Industry of Canada (Ottawa: King's Printer, 1908).

TABLE 5-23 Capital Invested in the Physical Plant of Mines and Works in Canada, by Province, 1910

Province or Territory	Capital invested in buildings and plant in 1910	% of total capital	Province or Territory	Capital invested in buildings and plant in 1910	% of total capital
Alberta	\$16,783,241	15.47	Ontario	\$23,121,976	21.31
British Columbia	18,978,589	17.49	Prince Edward Island	2,300	-
Manitoba	2,160,957	1.99	Quebec	8,583,951	7.91
New Brunswick	942,958	.87	Saskatchewan	904,050	.84
Nova Scotia	28,494,822	26.26	Yukon	8,533,207	7.86
			TOTALS	\$108,506,051	100.00

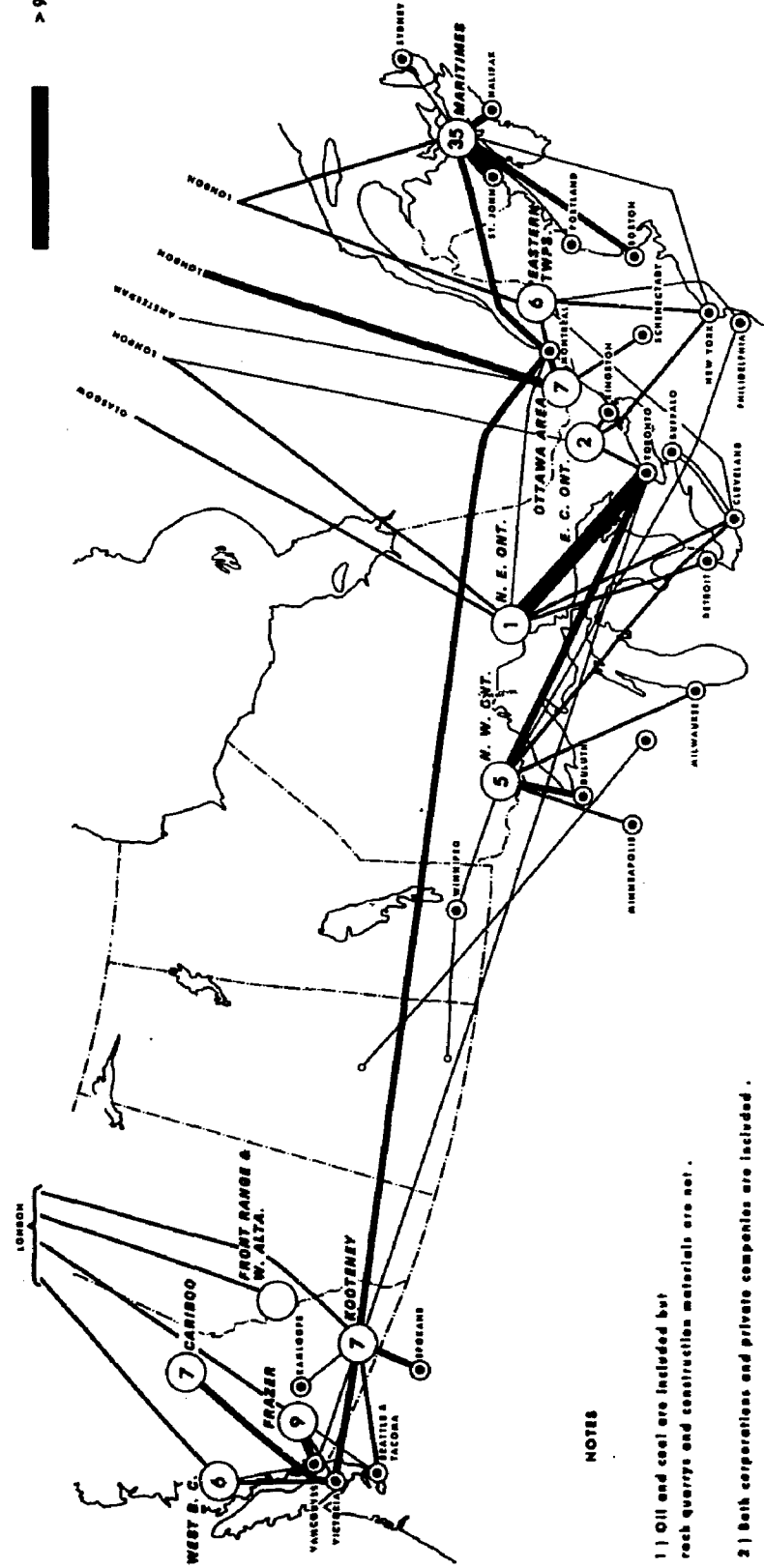
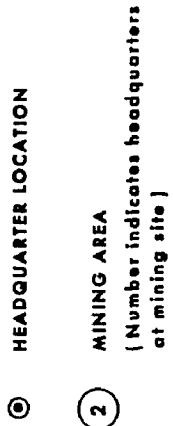
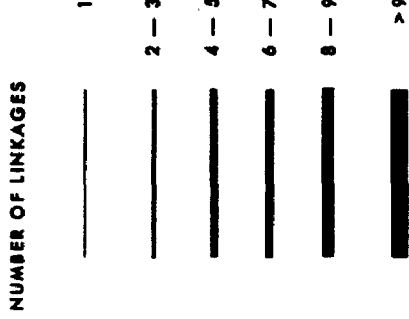
Source: Census of Canada--1911, Vol. 5, Forest, Fishing, Fur and Mineral Production (Ottawa: King's Printer, 1915), p. xx.

(ii) The location of the financial intermediaries serving the mining industry.--In 1893 mining company headquarters were not clearly oriented to any particular center. Out of a total of 248 mining companies operating in Canada in 1893, only 12.5 per cent were headquartered in Toronto, 10.0 per cent in Montreal, 4.4 per cent in Vancouver, and 1.2 per cent in Winnipeg.⁷⁵ Many were headquartered at the mine site (31.8 per cent), but also a great number were located in other scattered locations, places which were frequently small or distant such as Schenectady, Benson, Minn., Perth, Ontario, Duluth, Amsterdam, and Glasgow. The mining of British Columbia did show an orientation to Spokane, Washington. There was a slight pull on Nova Scotia's few mines to Boston. Toronto, New York, Cleveland, and Buffalo possessed some attractiveness for the head offices of the Shield's mines, but the general trend exhibited a lack of orientation to any particular financial community. The orientation of the mining companies head offices reflected their financing through the personal relationships of the mine makers, rather than an orientation to the information environment of any particular financial community.

By 1936, there had been a complete reversal of this orientation. Toronto clearly dominated as a headquarters center for Canadian mining, having 45 per cent of the mine headquarters of all companies operating in Canada. Vancouver had 16 per cent, Montreal less than 10 per cent, Winnipeg 5 per cent, and all other centers of the world 24

⁷⁵Compiled from B. T. A. Bell, ed., The Canadian Mining Manual and Companies Directory--1893 (Ottawa, 1893).

MINE - HEAD OFFICE LINKAGES IN CANADA - 1893



NOTES

- 1) Oil and coal are included but rock quarries and construction materials are not.
- 2) Both corporations and private companies are included.
- 3) Data compiled from G.T.A. Bell ed., The Canadian Mining Manual and Companies Directory - 1893.

FIGURE 5-2

MINE - HEAD OFFICE LINKAGES IN CANADA - 1936

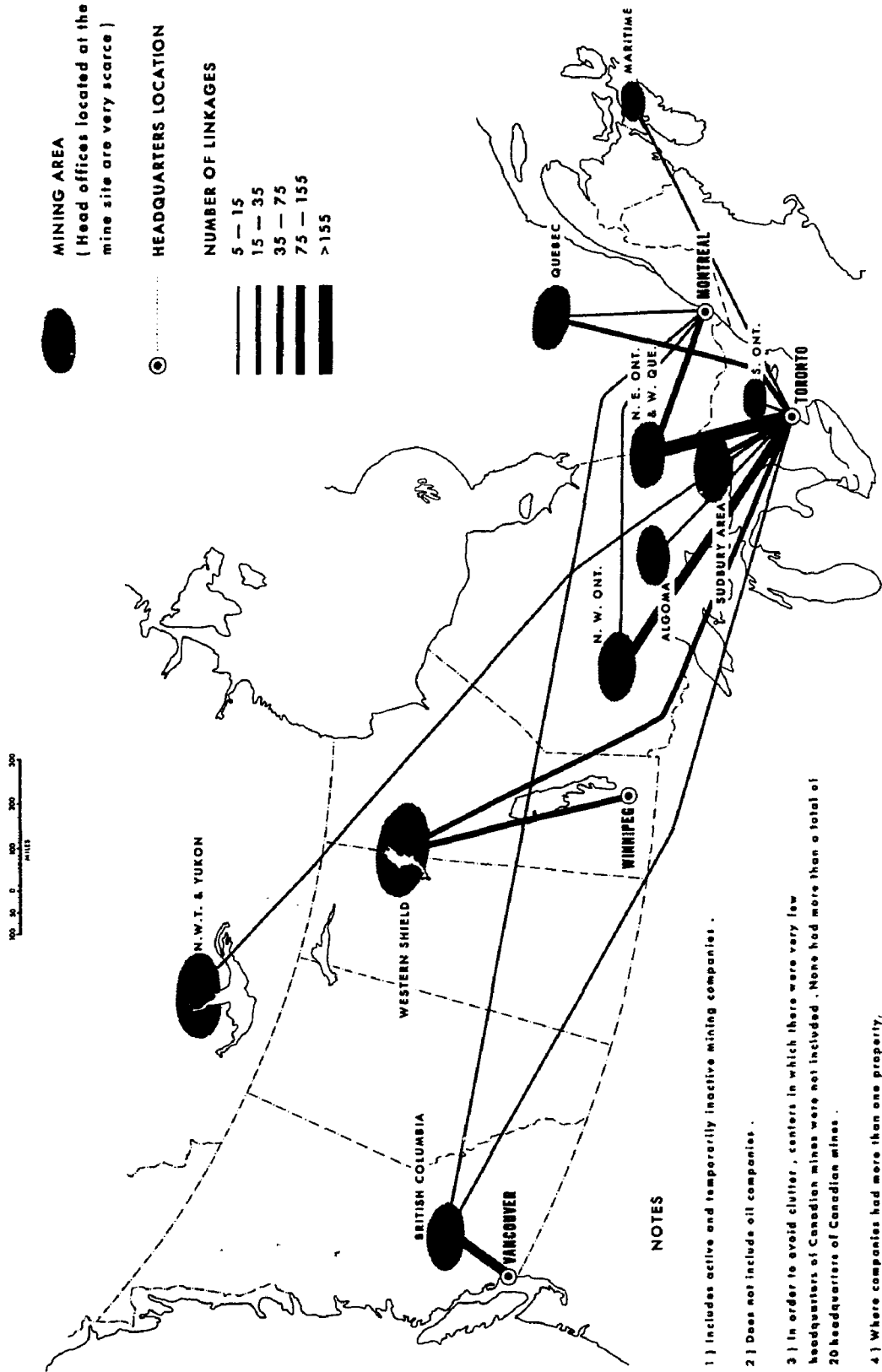


FIGURE 5 — 3

per cent.⁷⁶ It has been estimated that Toronto benefited to the extent of 100 million dollars from Porcupine, Kirkland Lake, and Rouyn and that these mines poured four million dollars a year into Toronto trade channels between 1911 and 1936. The Toronto Standard Stock and Mining Exchange was founded in 1898 and the Cobalt and subsequent fields gradually pushed the number of shares traded to an average of 25 million annually between 1911 and 1914, a number which exceeded the amount traded on the Toronto and Montreal exchanges combined.⁷⁷

The centralization of the intermediary function on Toronto was much greater than the centralization of capital supply on the same city. In the first place, in 1921 only 54 per cent of the ownership of mining securities was found in Canada as a whole (see Table 5-24).⁷⁸ And much of the ownership of that 54 per cent was to be found dispersed throughout Canada, although there was a higher concentration around Toronto than elsewhere.⁷⁹ Much of the important mining activity

⁷⁶Compiled from the Canadian Mines Handbook--1936 (Toronto: Northern Miner Press Ltd., 1936).

⁷⁷D. Kerr and Jacob Spelt, The Changing Face of Toronto (Ottawa: Department of Mines and Technical Surveys, 1965), p.80.

⁷⁸The distribution of stock and bond holdings of Canadian mining securities in the international market appears to be a further reflection of the mobility of information. Given a reasonable probability of the survival of the company, bonds are inherently more stable than mining stocks and require less intense information flows for satisfactory returns than does the latter form of security. From Table 5-24, it can be seen that bonds were the most popular form of investment in Britain, whereas stocks were the prevailing form of investment among Canadians and Americans. This preference could be a response to the uncertainty in Canadian mining investment, and a means of overcoming the inability of sufficient information to be moved to Britain.

⁷⁹See H. A. Innis, Settlement and the Mining Frontier (Toronto: The Macmillan Co., 1936), p. 385.

TABLE 5-24 International Distribution of Securities of the Canadian Mineral Industry, 1921

Distribution of Ownership of Total Securities for all Industries Except Agriculture, in Canada, as of December 31, 1921--per cent

	<u>Stocks</u>	<u>Bonds</u>	<u>Other Securities</u>	<u>Summary</u>
Canada	61.2	55.6	55.5	60.4
United States	29.4	17.7	31.8	28.0
Great Britain	7.3	16.0	8.1	8.4
Others	2.1	10.7	4.5	3.2

Distribution of Ownership of Securities of Mineral Industry of Canada

	<u>Stocks</u>	<u>Bonds</u>	<u>Other Securities</u>	<u>Summary</u>
Canada	54.3	45.8	62.4	54.1
United States	32.7	18.6	30.2	30.4
Great Britain	10.8	33.8	3.7	13.2
Others	2.2	1.8	3.7	2.3

Distribution of Ownership of Securities in the Several Mining Industries of Ontario

	<u>Total Metal Mining</u>	<u>Total Metal Mining Excepting Nickel</u>	<u>Gas and Petroleum</u>	<u>Earthy Economic Minerals</u>	<u>Total Mineral Industry</u>
Canada	50.0	69.9	52.0	83.8	52.0
United States	31.0	25.4	47.0	11.6	31.2
Great Britain	16.2	4.3	0.9	0.9	14.5
Others	2.8	0.4	0.1	-	2.1

Source: Louis D. Huntoon, "Distribution of Securities in Canadian Manufacturing and Mineral Industries," Mining and Metallurgy, Vol. 6 (Feb. 1925), pp. 63-67.

TABLE 5-25 The Distribution of Mining Engineers Among
the Major Cities of Canada, 1931

City	Number of Mining Engineers
Halifax	1
Quebec	8
Montreal*	120
Ottawa	62
Toronto	197
Hamilton	19
Winnipeg	13
Regina	6
Calgary	19
Edmonton	18
Vancouver**	112
Victoria	10
London	0

*Including Outremont and Westmount

**Including New Westminster

Source: Census of Canada, 1931, Vol. 7, Occupations
and Industries, Table 41.

on the Shield was controlled by Americans. All the leases in the Madoc mining area of Ontario were held by U.S. citizens in 1880. The General Electric Company of Schenectady, N.Y., controlled the largest mica mine in Canada. Although the first and most important discoveries in the Sudbury basin were made by Canadians, foreign financiers have largely dominated, from the beginning, in the International Mickle Co. and in others such as the British Mond Nickle Company, and the British America Nickle Company. Only Falconbridge Nickle Mines Ltd. became a successful Canadian-owned operation. In the Cobalt district, nine large dividend-paying mines were owned largely by American stockholders, these mines paying 60 million in dividends on the Cobalt operations by 1936.⁸⁰ Americans invested heavily in the securities of companies operating in the Porcupine field but they did not exert as great a controlling influence as in either the Sudbury or the Cobalt areas because the Canadian fortunes made in Cobalt were the foundation of many large-scale Porcupine companies.

Prior to 1890, Nova Scotia coal mining was conducted by a number of relatively small, local companies, most of the product being consumed in the Maritimes and a slight amount being exported to New England. The Dominion Coal Co. was formed in 1893 through a merging of most of the operations in the southern part of Cape Breton by a Boston capitalist. This company was in 1910 merged into Dominion Steel Company, a largely Montreal-financed concern. The Nova Scotia Steel and Coal Co. was a local concern, but with some Belgian and

⁸⁰E. S. Moore, American Influence in Canadian Mining (Toronto: University of Toronto Press, 1941), p. 37.

American backing. In general, the coal mining companies in Nova Scotia, from an early date, had considerable ties with Montreal, Boston, and New York. With the emergence of large companies such as Acadia Coal, and Dominion Coal, Nova Scotia mines were even more strikingly linked with those large financial centers.

Prior to 1897-98 in the Kootenays, "such evidence as there is indicated that American capital so predominated as to exclude British and Canadian almost entirely."⁸¹ American promoters "as a rule lived in Spokane, but they were able to interest New York capitalists in their successful ventures."⁸² Spokane was close not only in distance terms; it shared with the Kootenays a similar cultural milieu (July 4 rather than July 1 remained an occasion for celebration in the area well into the twentieth century) and physical geography posed a small barrier in the way of an extension of Spokane's "inland empire." Most of the money attracted through the Spokane intermediaries was American. The Rossland Miner commented in 1895 that "the absolute indifference of Canadians generally and eastern Canadians, in particular, to the mining development of their own great country is enough to make a citizen of West Kootenay weary and tired."⁸³ Canadian money, when it did arrive, was largely invested in already proven enterprises.⁸⁴

⁸¹F. W. Howay, et al., British Columbia and the United States (Toronto: The Ryerson Press, 1942), p. 289.

⁸²Ibid.

⁸³Quoted in Howay, et al., p. 295.

⁸⁴But eastern Canadians were not immune to the operations of stock jobbers from British Columbia, coming to Toronto and Montreal and capitalizing on the ignorance in that city of the distant mines. See "The Stock Jobbing Boom," in B.T.A. Bell, ed., The Canadian Mining Review (August 1896).

With respect to both the mines and the railroads in the Kootenay, American capital through Spokane or Butte arrived first and Canadian and British came only after the speculative profits had been made. The Gooderham and Blackstock syndicate of Toronto acquired the War Eagle Mine at Rossland only when the mine was worth over 700,000 dollars. The Sullivan mine at Kimberley was staked by some associates from Idaho and went through the hands of Spokane men, the Guggenheim interests (N.Y.), and finally into the hands of the C.P.R. controlled Consolidated Mining and Smelting Co. The flow of capital into the lode mines of the Canadian Cordillera took on a character which was familiar in many of the mining camps of North America. Promoters and other intermediaries migrated to a community near the mines, in this case Spokane and to a lesser extent Butte in Montana, or Victoria, Barkerville and Rossland in British Columbia, sometimes bringing capital with them, but more frequently acting as intermediaries for capitalists in older and more distant centers and often pre-existing mining camps. Marcus Daley, for example, migrated from the Comstock to Butte and was able to begin the Anaconda empire because of the backing of George Hearst, the possessor of two of the richest mines in the Comstock. Daley's fortune, in turn, backed the Hedley gold mines in British Columbia.

With the exception of those mining areas which were dominated by a few large corporations, as became true in the Nova Scotia coal fields, an unusually large portion of the decision-making connected with the financing of the mines was located near the mining fields. British Columbia's nineteenth century mining ventures were largely served by intermediaries located in Spokane, and even to-day British

Columbia mining is the mainstay of Vancouver's stock exchange. Cobalt and subsequent shield mining fields became closely tied to Toronto, and were even served by intermediaries and exchanges in the northern bush. This pattern is repeated many times in the mining areas of the American West.

(iii) Toronto versus Montreal and other cities.--Why did Toronto come to dominate mining finance on the Shield in the face of the alternatives of such centers as Montreal, Buffalo, Boston, New York, Cleveland, or even the small centers which arose on the mining fields themselves? Montreal was a larger financial community than Toronto at the turn of the century when the Cobalt lode was first tapped as, of course, were Boston and New York, and as well many individuals in cities such as Buffalo and Cleveland had sizeable interests in the early mines on the Shield.

An answer to this problem may be had by examining the functions of the intermediaries and the location factors affecting these functions in the context of the period just after the turn of the century. The intermediaries in mining finance had three main functions, acquiring capital for the mines through primary flotation, informing investors, and the secondary trading in securities. To function as an agency for the acquisition of capital for the mines, the intermediary needed first of all to have considerable information about the property he obliged himself to float, and secondly, access to a public both willing and able to invest. The first need would lead to a location proximate to the mines. At first glance, the second need would tend to promote locations such as New York, Boston, or even London. However, the relative lack of sufficient information in these centers

about the mining events, tended to diminish the proportion of total investors who were willing to sink money in the Shield mining ventures (although many did invest on the basis of minimal information). On the other hand, the investors in Ontario and parts of Quebec did receive greater exposure to events on the mining fields and were more receptive to the idea of investing in the securities of the shield mines. The net effect was a diminishing of what would otherwise be a preponderance of the eastern U.S. and Britain as sources of speculative mining funds. Canadians, despite their fewer numbers and a lower per capita income, owned 54 per cent of the stocks in the Canadian mining industry in 1921 compared with the American's 33 per cent (see Table 5-24).⁸⁵ Thus, when the mining concerns needed to acquire capital beyond that available through their private contacts and had to approach intermediaries to initiate primary distribution, two factors promoted a nearby centering of this activity. The first was that the intermediaries could become more informed than those elsewhere and therefore have a better chance of survival, and the second that there existed a sizeable market nearby. This, in turn, was reflected in the secondary market. Intermediaries functioned as advisors to investors and were generally more informed when near the mining fields. The sizeable nearby market, of course, utilized them

⁸⁵The steep distance decay function in information concerning the mines was not the only factor restricting the flow of capital. Undoubtedly playing a significant role was the fact that the mines were in a separate nation.

The fact that the proportion of foreign investment in all Canadian securities was greater than that in mining securities could plausibly be accounted for by the fact that considerable intervening opportunities existed in Britain and the industrial belt of the United States, while in regard to mining very few existed.

and even more distant buyers and sellers were attracted by their generally superior knowledge. If the intermediaries specializing in the securities of a particular mining area found it advantageous to be located nearby, and since they conducted the actual trading, the pace-setting market in general was also found in the same location, at least until events on the mining field became more stable.

Donald Kerr attributes the relatively early centralization of shield mining finance on Toronto to the building of the Temiskaming and Northern Ontario Railway from North Bay into the "Clay Belt" in the early years of this century.⁸⁶ It is maintained that this line gave Toronto advantages of accessibility over Montreal which were sufficient to promote the development of Toronto as a financial center for the shield mining. This contention, however, seems a bit tenuous as an explanation of Toronto's superior environment for the acquisition of mining information. The southern terminus of the Ontario Northland was North Bay, a junction point on the Canadian Pacific, and Canadian Northern transcontinental lines to Montreal, and a Grand Trunk line to Toronto. Toronto was closer, but not by much, the distance from North Bay to Montreal and to Toronto being 364 and 228 miles respectively and 13½ hours vs. 9½ hours in 1888, and not much less by the turn of the century. Such a small difference in accessibility, by itself, could not explain the disproportionately strong linkages of the northern mining fields to the financial intermediaries of Toronto.

The reasons for Toronto's supremacy in this field derive from

⁸⁶Donald Kerr, "Some Aspects of the Geography of Finance in Canada," The Canadian Geographer, Vol. 9, no. 4 (1965), p. 187.

a more complex set of factors, affecting the availability of information about events in the northern bush in the several potential mining finance centers.

In the initial stages of mining development on the Shield, most of the financial links were with scattered individuals and small syndicates, the range of linkages reflecting the personal information fields of the discoverers of the properties. In this regard, Toronto possessed a larger quantity of such links than did Montreal, its most serious rival. Toronto and the neighboring areas of Ontario sent more of its sons into mining exploration than did Montreal and its neighboring communities.⁸⁷ In addition, many of the continent's prospectors found it advisable to first stop off in Toronto in order to consult the yeoman work of the geologists of the Ontario Department of Mines. Many of the mining prospects (such as Little Long Lac) were first revealed as promising in the reports of this organization. Toronto also dominated the trade with Northern Ontario, thus increasing awareness in Toronto of the opportunities in the northern mining fields.⁸⁸ While Montreal had a more sizeable financial community in the early twentieth century than Toronto, its somewhat larger size was not overly significant to the early speculative investments in mining. This type of finance was superimposed upon the more traditional forms. While the links between the two became stronger, speculative mining finance was in many ways divorced, a feature which was shown by the separate

⁸⁷This conclusion is substantiated if not made quantifiable by biographies such as Arnold Hoffman, op. cit.

⁸⁸See F. W. Field, The Resources and Trade Prospects of Northern Ontario (Toronto: Toronto Board of Trade, 1911).

existence of exchanges dealing in industrial and other more stable securities and those dealing in mining (e.g. the Standard Stock Exchange formed in 1898, and the older Toronto Stock Exchange). For the early acquisition of capital from the general public, what was of greatest importance was the willingness of small investors to speculate in mining securities. Toronto possessed such people in greater numbers than did Montreal. The French-Canadian majority of Montreal, on the other hand, was more conservative in their investment decisions, a fact which has been borne out by several sociological studies.⁸⁹

When the financing of mining development could no longer be handled by individuals and small syndicates, Toronto had distinct advantages over rival cities as a center of the expanded intermediary function. It was the closest city to the mining fields and private information and visibility of local conditions on the shield were more prevalent here than in rival centers. It possessed an already existing financial community which could provide sufficient external economies for the limited needs of mining finance. Partly because of the personal contacts of many of the people directly connected with the mining properties, individuals in Toronto served as backers for more developments than did those of Montreal or individual U.S. centers. This concentration served as a catalyst, trading of shares took place here which attracted shares and funds from other centers, which in turn

⁸⁹For example, Norman W. Taylor states "Business is business for the French-Canadian, but it is not good business if it seems to mean threatening family security by possible overreaching" [Norman W. Taylor, "The Effects of Industrialization--Its Opportunities and Consequences Upon French-Canadian Society," J. of E. H., Vol. 20, no. 4 (1960), pp. 368-647. Also, see E. C. Hughes, French Canada in Transition (Chicago: University of Chicago Press, 1943).]

increased trading. An upward growth spiral resulted. This growth cycle could have ended with the success of the mining field, the increase in capital requirements and the evolving supremacy of large mining corporations. The financing of these operations typically migrates to larger financial communities which are able to supply them with superior financial services. With reduced uncertainty and information systems controlled and internalized within the corporation, the spatial constraints promoting nearby locations for financial intermediaries largely disappear. However, in Toronto's case (and unlike comparable situations such as Spokane, and Colorado Springs), the city possessed a broader financial community which was comparable to Montreal's and able to provide continuing service to many of the larger mining corporations when they needed large scale financing.

The financing of the speculative mining ventures in the Canadian Cordillera did not centralize on Toronto. Even to-day, most of the listings on the healthy Vancouver stock exchange are largely those of small western mines. In 1893, Vancouver was able to attract nine head offices of mining companies at a time when there were almost 70 mining concerns in the province of British Columbia. Most of the head offices were scattered among smaller British Columbia and American centers. By 1936 Vancouver had more mining headquarters than any other Canadian city, except Toronto. Vancouver, by this date, had overcome the competition of neighboring U.S. cities as a financial center for Canadian mining. It has fared considerably better as an independent financial center than comparable cities between itself and Toronto, such as Edmonton and Winnipeg. This is mainly a reflection of the number of mining properties in the Canadian Cordillera, coupled with

the continuing, although decreasing, problem of rapidly gaining the necessary amounts of uncertainty-reducing information about speculative mines in the distant eastern cities.

It is hypothesized that it is more than accidental that the largest financial center in Canada, outside of the old centers of Montreal and Toronto, is Vancouver on the west coast and that in the U.S. the largest financial center (by the criteria of total assets held by its institutions and number of shares traded) is San Francisco.

5. The Locational Impact of Western Expansion on Financial Intermediaries

a. Banks and Loan Companies

Attempts by the Prairie cities to acquire independent financial communities was rather unsatisfactory from a western point of view. Financial intermediaries became to those westerners the primary group of villainous perpetrators of what they considered their colonial status--this view becoming a common theme of Canadian history, and even current events. Westerners thought that their cities should evolve an independent financial structure in much the way Gras later expressed and as they had seen the process work in earlier times in Canada and the U.S. But, for the most part, locational trends were in a direction which caused much financial decision-making to remain in its previous location.

In the United States, as late as 1897, there were still distinct regional variations in discount rates (see Table 5-26), pointing out that spatial impediments to the flow of funds could still occur in what was already the most economically-advanced country in the world. One response within the frontier areas which were relatively deprived

TABLE 5-26 The Average Weekly Rate of Discount in Forty-Three United States Cities, 1893-1897

	%		%
New England		Middle States	
Boston	3.832	Cincinnati.....	5.012
Hartford	4.602	Chicago	5.742
Providence	4.982	Pittsburg	5.838
Portland	6.	St. Louis.....	5.903
Eastern States		Milwaukee	6.276
New York	4.412	Indianapolis	6.369
Baltimore	4.567	Cleveland	6.376
Philadelphia	4.612	Detroit	6.415
Buffalo	6.007	St. Paul	6.607
Southern States		Minneapolis.....	6.903
New Orleans	5.853	Kansas City	6.911
Richmond	6.	St. Joseph	6.969
Memphis	6.103	Duluth	7.253
Nashville	6.673	Western States	
Louisville	6.826	Omaha	7.980
Charleston	7.026	Denver	10.
Galveston	7.311	Pacific States	
Mobile	7.957	San Francisco.....	6.216
Savannah	7.992	Los Angeles	7.057
Atlanta	8.	Portland	8.
Birmingham	8.	Salt Lake City	8.
Houston	8.	Tacoma	9.273
Little Rock	8.015	Seattle	9.969
Dallas	8.342		

Source: R. M. Breckenridge, "Discount Rates in the United States," Political Science Quarterly (March, 1898), p. 126.

of funds, was to make better use of the funds which were available locally, and create institutions for this purpose, institutions which would incidentally also help oil the movement of funds to the high discount area. An alternative response was to devise organizational arrangements to make more efficient the movement of funds from already existing centers. In this way, impediments to the flow of capital are removed and without a steep gradient in the spatial variation of interest rates, some of the driving force behind the formation of independent financial intermediaries on the frontier is removed. In effect, the need for the independent financial organizations in the newly evolving area is pre-empted by the organizational adaptations of the old. In the United States, the western-based banks which arose and the rediscounting process through which funds could be transferred from the east, for many years proved insufficient to the task of balancing interest rates.

The Canadian experience with her west was substantially different. It commenced at a later time and in a legal environment, largely free of restrictions to direct transcontinental operations of financial intermediaries. There was "a national equalization of the rate of interest through economies in the cost of transferring capital, and a highly effective system of arbitrage."⁹⁰ This arbitrage system of the Canadian banks was sufficient to substantially reduce the difference

⁹⁰Roeliff Morton Breckenridge, "The Canadian Banking System, 1817-1890," *op. cit.*, p. 585. For a more comprehensive examination of the contribution of branch banking to the mobility of funds in the economy, see John Alexander Galbraith, The Economics of Banking Operations: A Canadian Study (Montreal: McGill University Press, 1963), pp. 165-212.

in interest rates across Canada (see Table 5-27).⁹¹ The eastern banks rushed into the West, frequently establishing their branches in the interval between the departure of the navvies and the arrival of the homesteaders. "One of the main advantages of branch banking is the ease with which branches can be established in small and newly developed communities. New communities have comparatively little to deposit at first, but they are full of enterprise and opportunity and the demand for loans is heavy. Because local capital is scarce, unit banks could be established but slowly."⁹² Because of standardized procedures, the control which can be exercised over the branches, and thus the reduced uncertainty most resistance to the flow of funds can be eliminated. Widespread banking systems are also relatively immune to runs and panics. They widely distribute risks and are relatively immune (compared to the true unit banking system) to the effects of local conditions. As a rule, they also possess more experienced and highly trained executives and staff. The branches have a great deal of power behind them and "...are able to make larger loans, and through their many ramifications are enabled to serve their customers most fully in the selling of foreign and domestic exchange and in obtaining information relative to business, economic and credit conditions in

⁹¹For an analysis of the similar role played by the wholesaler as an arbiter of the prices of physical goods (and sometimes incidentally, the price of money), see James E. Vance, Jr., The Merchants World: The Geography of Wholesaling (Englewood Cliffs: Prentice-Hall, 1970), pp. 58-59.

⁹²E. L. Stewart Patterson, Canadian Banking (Toronto: The Ryerson Press, 1941), p. 65.

TABLE 5-27 Rates of Interest Charged by the Chartered Banks on Four Classes of Loans in Eastern and Western Canada, 1900-1930

Class of Loan	Eastern Canada	Western Canada
Commercial	6-7%	6½-7½%
Call	6-6½%	6-7%
Municipal	6-6½%	6-7%
Farmers	7-8%	6-10%

Source: J. T. Bryden, "Interest Rates in Canada," C.J.E.P.S., Vol. 3, p. 432.

TABLE 5-28 Mortgage Rates in Various Parts of Canada, 1929*

Weighted average rate of interest on new business accepted and completed			
Ontario (including Montreal)	7.11%	New Brunswick	7.63%
Manitoba	7.04%	Nova Scotia	7.44%
British Columbia	7.11%	Oxford County, Ont.	6.85%
Alberta	7.81%	Brant County, Ont.	7.00%
Saskatchewan	7.37%	Average	7.10%

* Reflects the experience of one company which operated throughout the whole of Canada.

Source: J. T. Bryden, "Interest Rates in Canada," C.J.E.P.S., Vol. 3, p. 433.

Canada and abroad."⁹³ But, in general, the main advantage of the branch system over the unit system is its relative freedom from inefficiencies in the money market system. "Unit banks...have to trade securities or engage in other types of transactions in order to redistribute existing cash reserves to meet the altered geographical conditions facing the banking system; under branch banking no such transactions are generally necessary."⁹⁴ In eastern Canada, the system of branch control was already well established and a system of standardized rules and regulations established.⁹⁵ As well, many of the settlers in the West were from eastern Canada, and already familiar with the various eastern financial institutions.⁹⁶ It was a relatively easy matter to transpose the system to the newly opened West. The banks, trust companies, and some other financial intermediaries of Toronto and Montreal were thus in an excellent position by the turn of the century to pre-empt the arrival of an indigenous system in the West. They provided a large quantity of credit at relatively low rates,⁹⁷ and were largely able to avoid the hazards of operating

⁹³Benjamin H. Bechart, The Banking System of Canada (New York: Henry Holt and Co., 1929), pp. 366-67.

⁹⁴John Alexander Galbraith, op. cit., p. 184.

⁹⁵See, for example, The Canadian Bank of Commerce, Rules and Regulations (Toronto, 1903).

⁹⁶In 1911, in Calgary, 16,545 of the cities 60,502 residents were born in eastern Canada (Fifth Census of Canada, 1911, Vol. 2 (Ottawa: King's Printer, 1913)). Presumably, many of the British and Foreign-born were resident in the East for sufficient periods to become familiar with the large Canadian banks.

⁹⁷These rates were not universally low and complaints from the West were not uncommon. In some of the newly established and more remote communities where there was little banking competition, interest

exclusively in a frontier and undiversified economy.

During the wheat boom, two indigenous banks, the Commercial Bank of Manitoba and the Northern Bank, established themselves in Winnipeg, and one established itself in Weyburn, Saskatchewan. As well, the Union Bank of Quebec City moved its headquarters to Winnipeg in 1912 and the Northern Bank absorbed the Crown Bank of Toronto. These institutions, however, were unable to face the competition of the largely Toronto- and Montreal-based institutions. The Commercial Bank had disappeared by 1893 and the Northern Crown by 1918. The Weyburn Bank lingered until 1931. Besides these chartered banks, there were some private bankers in the West. By 1896, there were 23 in Manitoba and the Northwest Territories and 3 in British Columbia. These "banks" (it was, and is, illegal for them to describe themselves as banks) possessed small means, and were frequently operated by individuals with no knowledge of banking. They provided very minimal competition to the chartered banks and, in fact, were parasitic on them and soon withered and died when deprived of a branch of a chartered bank in which to acquire a line of credit.⁹⁸

The failure of autonomous banks in the West, of course, doesn't mean that banking employment was reduced in that region. But,

was sometimes from one to two per cent higher than in the closely settled areas around Regina, Moose Jaw, and Saskatoon. See the Report of the Royal Commission Appointed by the Government of Saskatchewan to Inquire into Ways and Means for Establishing Agricultural Credit, summarized in the Journal of Political Economy, Vol. 22 (1914), pp. 384-388.

⁹⁸Massey Morris, "The Land Mortgage Companies and Government Savings Banks of Canada," J.C.B.A., Vol. 3, no. 3 (April 1896), pp. 622-

there are indications that the level of decision-making in the financial centers of the West was reduced by the branch banking system centralized on Montreal and Toronto. It would be a mistake, however, to overestimate the centralizing effect of the branch banking system in comparison to the fragmented banking system which has characterized the United States, for centralization occurs in this system as well. By 1941, it was calculated that one per cent of U.S. banks controlled 75 of that nations commercial deposits.⁹⁹ The banks making up this one per cent, however, were scattered among American cities to a greater extent than in Canada.

In Canada, by this time, 100 per cent of bank assets, commercial deposits, etc. were in the hands of a handful of Montreal and Toronto banks. The vast majority of the employment in these banks remained scattered among the "street offices" and some higher level decision-making authority was concentrated in regional offices. However, a surprising amount of the administrative and decision-making authority was concentrated in the metropolitan head offices. The Canadian Bank of Commerce Book of Rules and Regulations of 1903 provides some illuminating examples. Approval from head office in Toronto had to be obtained before actions such as the following could take place:

- (1) the marriage of any employee earning less than \$1,000;
- (2) before hiring any junior clerk;
- (3) before writing a letter of recommendation;
- (4) before advertising;

⁹⁹Patterson, op. cit., p. 67.

(5) before advancing sums in excess of \$2,000;

(6) before renewing lines of credit.

The branches were required (and for the most part still are) to submit daily, a statement, a branch clearing account; weekly, a report on business, a statement of liabilities; monthly, a cash items account, a monthly liability return; twice a year, an estimate of profit, a full liability return, a bad and doubtful debt statement, and a complete profit statement; and annually, a statement of unclaimed balances. The branches were also subject to rigorous inspections, usually conducted from head office in most banks, although sometimes conducted from a regional office if such existed. Over eight pages of the rules book were needed to describe methods of communication with head office in Toronto, both through the mails and by ciphered telegraph messages.¹⁰⁰ The branch clearing system made the head office the clearing house for all inter-branch transactions.¹⁰¹ The responsibilities of "head office" embraced all matters relating to (1) staff, (2) premises, including safes and vaults, (3) stock allotments and transfers, and also dividend payments, (4) note circulation, (5) investment, (6) preparation of returns to the government, (7) agreements with other banks, bankers, and correspondents as to collections, drawing, letters of credit, etc., (8) opening and closing of branches, (9) inspection of branches and enforcement of the bank's rules and regulations, (10) examination of branch returns, (11) granting of loan and discount credits, (12) adjustment of accounts current between head office and

¹⁰⁰The Canadian Bank of Commerce, op. cit.

¹⁰¹Patterson, op. cit., pp. 268-69.

foreign and domestic branches and agents, (13) private (cipher) telegraphic arrangements, (14) stationary supplies, (15) insurance of various kinds, (16) subscriptions, (17) advertising, and (18) instructions as to legal proceedings.¹⁰²

In summary, independent banks were started on the prairies or moved their headquarters there during the explosive growth period in the Canadian West, but they failed in a competitive struggle with the branches of the large metropolitan banks of Toronto and Montreal. Not only did the metropolitan banks eliminate (after the wheat boom) the formally independent western banks with their somewhat greater level of independent decision-making power, but centralized a surprising degree of the internal decision-making within the branch system.

The organizational and communication changes from that which was characteristic before 1850 enabled this spatial projection of the Canadian economy which took place just prior to the turn of the century to occur without a major independent banking center arising in Winnipeg. In comparison to the pre-1850 situation, the differences in the organizational and communications systems and the relative size differences between the prior financial centers and institutions, and the nascent financial centers and institutions, appear to be sufficient to explain the lack of independent banking institutions and the relatively low level of banking decision-making authority which typified the prairie cities and particularly Winnipeg. These changes enabled

¹⁰²A. Gordon Tait, "The Branches: From the Vantage Point of Head Office," J.C.B.A. (1906), p. 214. Also, see Allan McKenzie, "The Canadian System of Branch Inspection," in J.C.B.A., Vol. 34 (1926-27), pp. 80-86.

the metropolitan banks to enter the West not only as a competitive equal of the Winnipeg banks in terms of the information available, but even as their superior. As well, they had the added advantage of a geographically and sectorally diverse clientele, a characteristic which reduced the risk of failure. The advantages of close contact with a large national and international financial center were permitted by the organizational and communications innovations adopted and available prior to the western expansion. One of the primary organizational changes was the increasing standardization of banking procedures. This type of organizational adaptation to communications problems is of ancient standing and was certainly utilized during the first part of the nineteenth century, but it had reached a high degree of polish by the turn of the century. This standardization of procedures considerably minimized the need for communications. Prior to the 1850's, in both the trans-Atlantic and Montreal-Upper Canada financial links, the level of standardization appears to have been insufficient and considerable decision-making power had to be allocated to intermediaries away from the head office. At the turn of the century in Canada, communications facilities were quite sufficient to accommodate those limited but important flows of information which were not part of the standardized procedure, as well as those routine and standardized communications. The result was that the metropolitan banks were able to centralize much of the internal decision-making of the organization, not only concerning events affecting the overall system but of events in the individual branches. The organizational and communications system at the turn of the century enabled the large metropolitan banks to extend the advantages emanating from their scale

and their location in the metropolitan nerve center, to the Canadian West. The independent western banks had lost much of their advantages of being able to make more rapid individualized decisions about local events than the more distant banks. They lost this advantage because of the standardization and communications network of the metropolitan banks. Furthermore, judging from the American situation at the same time, the regulations of western independent banks with the money markets at the East was less smooth than were the relations of the branches of the national banks. Finally, by the branch expansion, the intelligence in the metropolitan financial community concerning events in the West was greatly increased, thereby increasing the advantages of the metropolitan banks. This made the position of the independent western banks even less tenable.

In more recent years, there has been some decentralization of this administrative function. With the continual growth of the size of the branch organization and the complexity of services offered, and the only marginal increase in communications facilities,¹⁰³ the volume of data required to be moved became very large. As well, the return to the banks from a great deal of this information was not great on a per unit basis (unlike some types of information on securities investment). It actually became less feasible to move this information to the center, and greater decision-making powers were returned to the regional offices of some banks. In effect, there may have reoccurred a state of information overload.¹⁰⁴

¹⁰³Until the advent of the computer in the late 1950's.

¹⁰⁴The problem of informational flow within the organization,

By 1900 the operations of loan companies had largely given way in Eastern Canada to individuals who could lend to lower rates and on better terms. But the promising field of the West opened up with an almost insatiable demand for mortgage funds, a demand which the banks were not able to fill because of Bank Act restrictions. In the U.S., most of the loan companies were organized in the West, "whereas in Canada the great majority of the companies were formed in the East." Massey felt that "this is no doubt owing largely to the fact that land mortgage companies in the United States are of quite recent date."¹⁰⁵ In Canada, these companies were well established and their penetration of the western market pre-empted a great deal of competition from the prairie cities.

b. Commodity Exchanges

During the first half century after the completion of the Canadian Pacific Railway main line, the economic activity on the prairies was of a type whose financing did not overly demand "information in a hurry." There was, of course, land speculation, but the banks were forbidden to dabble in this field and other financial institutions which went beyond providing legitimate mortgage funds invited premature failure. There were practically no speculative mining ventures. Oil did not become a major industry until after

of course, is not the only reason for an allocation of greater administrative authority to some branches. The desire to make the branches "financial performance centers" whose profitability can be more easily detected. See Appendix on Banking in James S. Hekimian, Management Control in Life Insurance Branch Offices (Boston: Harvard School of Business Administration, 1965).

¹⁰⁵Massey, op. cit., p. 247.

World War II. However, there was one highly speculative form of investment which did occur on the plains--the grain futures market. As was true of mining, this form of financial activity occurred near the area of production, although for somewhat different reasons.

The trade in commodities such as grain is in a gray area between the direct marketing of goods, which might be classified as wholesaling and that more remote and less tangible trade in instruments or paper for its own sake, which is more characteristic of financial activity. The trading on such exchanges as the Winnipeg Grain Exchange and other leading grain futures markets such as Liverpool, Chicago, and Buenos Aires is in certificates of ownership of grain in terminal elevators.¹⁰⁶ Most of the activity on the commodity exchanges such as that at Winnipeg has involved "hedging" a means of providing insurance against price changes which is necessary to acquire bank financing of grain purchases.¹⁰⁷ This hedging process is of very great importance to those directly moving the crops from producer to consumer, such as exporters, processors, and elevator companies.¹⁰⁸

¹⁰⁶George S. Mathieson, Wheat and the Futures Market (Winnipeg: Hignell, 1942), and J. B. Baer and O. G. Saxon, Commodity Exchanges and Futures Trading (New York: Harper, 1958).

¹⁰⁷A "hedge" consists of a sale of grain futures on the futures market against an equivalent amount of grain purchased elsewhere or of a purchase of grain futures in the futures market against an equivalent amount of grain sold elsewhere.

¹⁰⁸This description is that of the largely open market prior to 1943 (with the exception of period 1919-20) when the Canadian Wheat Board became the sole marketing agent with complete control over the flow of Canadian wheat. In the period 1958-68, membership on the Winnipeg Grain Exchange has dropped by more than a hundred to 380. Seats that once brought \$25,000 now can be bought for \$300 (Toronto Globe and Mail, Feb. 8, 1968).

As a location for a grain futures market, Winnipeg is unique in being separated by 400 miles from the terminal elevators at Fort William and Port Arthur. In Chicago, Minneapolis, and Duluth and other United States grain markets, the market and terminal storage facilities both evolved in the same city. In Canada, the place at which prices are based and the point of delivery on contracts is the Head of the Lakes even though the market is in Winnipeg.¹⁰⁹ But, there appears to be nothing unique in the grain market being located in Winnipeg, as a center near the place of production, export or import, as opposed to being in a large financial community such as Montreal, New York, or London. It shares this characteristic with all the major grain markets. Why this should be so appears to lie in the fact that the trading is primarily dominated by producers, shippers, and consumers rather than those purely interested in the changing value of the certificates of ownership. If those treating grain ownership certificates as a speculative investment had dominated the trading in grain futures during the early years of the exchange, there would be little reason for a location proximate to the grain. The paper could be as unrelated to the location of the tangible product they represent as stocks in a gold mine. With the grain trade established as a means of facilitating the flow of the product, investment and financial activities connected with the grain would naturally use the already established market. Thus, the trading in grain certificates took place at a nexus in the grain flow, in this case at

¹⁰⁹L. M. Fair, "The Transportation of Canadian Wheat to the Sea," in National Problems of Canada, McGill University Economic Studies, No. 1 (Toronto: Macmillan, 1925).

Winnipeg, primarily as a service to the wholesaler and shipper. But, this frequently volatile market also attracted the speculative investor, requiring up-to-the-minute information. This information could most readily be acquired at this nexus, around the trading floor and near a great many people concerned with the production and marketing of the grain. If the investor cannot be present, it is necessary that an intermediary be there and in a position to make decisions. In this uncertain environment, the information which would necessarily have to be transmitted without this preprocessing would be unwieldy in quantity and lose considerably in quality.

What independent decision-making power Winnipeg's financial community possesses can to some degree be attributed to the financial activities connected with the grain market. Winnipeg headquartered "Richardsons," Canada's largest securities house, acquired its prominent position largely as a result of its early activities in the grain market.

c. The Insurance Industry

Besides the financial activity connected with the grain market and the later financing of oil development, the only other important concentration of financial decision-making the West acquired was in insurance. In 1890, there were no insurance companies headquartered in Winnipeg at all, but by 1910 it was the fourth largest insurance center in the country in terms of assets controlled by companies headquartered in that city (see Table 5-14). In 1930, it dropped to fifth place, but by 1950 had regained its fourth place position. Montreal

and Toronto, throughout the period from 1870 to the present, occupied first and second place but their domination of the industry has not been as great as that found in the banking and securities fields. The type of insurance companies throw some light in the reason for Winnipeg's position as an insurance center. These centers--Kitchener-Waterloo, London, and Ottawa--have had a very high concentration of insurance activity in comparison to their population, and position as control centers for other financial functions. As has been pointed out by Robbins and Terleckyj, and earlier in this work, the linkage of insurance companies are less to the "medieval" communications network of the more general financial community. Rapid acquisition of information is less of a locational determinant than with many other financial functions. Insurance is to a considerable extent dealing with risk--things which are able to be discounted--and its investments are predominately of a relatively stable variety. Its more important locational criteria could best be put under the heading of "classical agglomeration economies." Insurance headquarters tend to be clustered, but frequently in smaller centers such as Hartford in the United States. Their locations appear only marginally related to the size of the other elements of the financial community. Given a certain mass, insurance headquarters appear to be a relatively footloose function; it is even possible for large insurance companies to exist in isolation as occurs in St. Hyacinth and Wawanesa.

In the case of Winnipeg, the insurance companies which it acquired during the wheat boom and on into the 1920's experienced relatively few disadvantages because of its headquarters location. Winnipeg organizations such as the Canadian Fire Insurance Company

initially limited their services to Manitoba and as a regional operation experienced no difficulty in serving its agents and customers. Upon acquiring a national or international business, the agency system, good physical communications, and a limited need for up-to-the-minute and private information in order to make investment decisions, permitted it to continue operating despite comparative remoteness from its markets.

d. The Financing of the Infrastructure
of the Expanded West

The financing of the transportation system, the producers of farm equipment, hardware and household appliances, and the sundry other goods required for the production and export of the areas staple also settled primarily on Toronto and Montreal institutions. The moderately high tariff wall prompted the use of eastern Canadian manufacturing goods on the prairie farms. The producers of these goods demanded funds both for expanding production and for extending credit to western purchasers and this demand was directed to institutions nearby in the East. The locational necessities of industrial production resulted in a transferral of demand from the West through the organization of manufacturing and wholesaling concerns to the eastern financial centers. Thus, a part of the demand in the West did not reflect itself in the western branches of the national financial organizations but in the eastern ones and frequently directly at the head office (see Section 1 of this chapter).

The gigantic quantity of funds demanded by the railroads could not be obtained nor could their acquisition be organized in the West. To a much greater extent than in the 1850's, these new developmental

rail lines of the late nineteenth and early twentieth centuries utilized the financial resources and services of Montreal and Toronto institutions (as well as those of Ottawa). British and American financial houses¹¹⁰ played a significant role in the distribution of Canadian railroad securities but unlike the situation in the 1850's (with the building of the Grand Trunk and the Great Western), they were not the prime movers in the private sector. Canadian institutions such as the Bank of Montreal and the Bank of Commerce played a central role.

6. Financing the Oil Industry

Oil was discovered in the Turner Valley in 1914 and major development only commenced after World War II. But, even at this late date, investment in oil exploration and development was sufficiently uncertain to necessitate the nearby location of much of the related Canadian financial intermediary activity, much as mining did in the earlier decades of the century.

These discoveries gave rise to over 400 independent oil companies. Dispersion of much of the oil exploration activities coupled with the precarious nature of oil exploration itself, entered a major element of uncertainty into the financing of these companies. It was necessary that a considerable amount of information be available to financial intermediaries in order for them to channel funds wisely to the various operations. The initial capital for these independent

¹¹⁰Such as Morton Rose and Company in London, John S. Kennedy of New York, who represented the C.P.R. ("The C.P.R. Contract," reproduced in Henry J. Morgan, ed., The Dominion Annual Register and Review, 1880-81 (Montreal: John Lovell and Sons, 1882), p. 141.

exploration programs was raised by the sale of common stock to the public. The initial success of many of these companies caused them to seek methods of financing that would enable them to continue development drilling without diluting the equity capital already obtained. Their first recourse for funds was to the Canadian chartered banks, once they had the collateral of hydrocarbons in the ground.¹¹¹

As was the case in mining, a disproportionate share of the financial intermediary activity connected with the flotation of equity shares in oil was located near the area of development. In the case of the oil industry, it was centered around Calgary. This is partially reflected in the fact that, of the 300 companies listed on stock exchanges in 1961, over one-third had their securities listed on the Calgary board, an exchange which without the oil companies would be practically non-existent. In addition, just under 150 oil company head offices were in Calgary, out of a total of 380 in Canada, and another 45 were located in Edmonton.¹¹² Of course, proximity to operational activities was one reason for the location of head offices in Calgary, but also significant was the fact that the vital financial aspects of the business could, for the most part, be performed in Calgary. Only a small proportion of the companies found it necessary to split the function and create both a head office and an executive office, the executive office usually reflecting the location of

¹¹¹C. H. Monro, "Banking for the Petroleum Industry," The Canadian Banker, Vol. 70, no. 1 (1963), p. 40.

¹¹²Compiled from The Financial Post Survey of Oils--1961 (Toronto: MacLean-Hunter, 1961).

financial control. Usually one would be located in Calgary and the other in Toronto or Dallas.¹¹³ The large integrated oil companies almost always had their head office in Toronto or Montreal, or an American financial or oil center, partly reflecting an early attachment to the Petrolia fields in Ontario, or other early fields in North America, partly reflecting an orientation to the marketing and distributional systems of the integrated companies and partly reflecting an orientation to the financial and other administrative functions with which they had external linkages. The locational attachment of the head offices of most companies to the operational end of the business has been shown to be a relatively minor influence by the fact that even though oil exploration and production has shifted northward along the Canadian Cordillera, Calgary has remained the largest center of oil company headquarters. When Calgary first arose as an oil center, there was little need for the oil companies to locate in a financial center such as Toronto, because the financial intermediaries needed to have greater information themselves than what was available in Toronto, and therefore located much of their decision-making in Calgary. The banks, for example, were forced to adopt a Calgary location for their activities connected with the oil industry as a great deal of the specialized information required in connection with the collateral (mainly "hydrocarbons in the ground") was localized in Alberta. Bank accommodation to cover a contemplated drilling program necessitates that "the bank be prepared to evaluate each well shortly after it begins production and this necessitates

¹¹³Ibid.

the widespread use of either staff technicians or petroleum consultants."¹¹⁴ Not only did the uncertainty connected with the oil exploration and development require the banks to establish an extensive information gathering and processing system in the West, but it also resulted in the Calgary orientation of a considerable number of brokerage research facilities and even the fourth largest stock market in Canada.

Again, uncertainty associated with speculative investment in a spatially concentrated, narrowly divided, mass of small mineral exploiting firms resulted in a shift of non-standardized financial decision-making to a nearby city. And again, this may be attributed to the quantity and spatial concentration of up-to-the-minute potentially valuable information.

7. The Locational Implications of the Links Between Canadian Finance, and Commerce and Manufacturing

The strategy behind the "National Policy", originally put forth by MacDonald's government and in varying degrees in effect ever since, was that the provisioning of the developing frontier areas of Canada would fall to Canadian manufacturers and commercial enterprises. Most of these enterprises were in Central Canada and they largely remained there. This by itself provided a large and expanding nearby market for financial services and gave central financial communities a locational advantage, to the extent that spatial friction still existed.¹¹⁵

¹¹⁴Munro, op. cit., p.

¹¹⁵For example, without spatial friction an equivalently sized

There were important implications for financial communities of the economic and spatial concentration of corporate control. Probably the most significant impact on the distribution of higher level financial activities was the manner in which this structured the flow of financial information over space, through the internal corporate communications and control system.¹¹⁶ But this structuring would only be of direct benefit to financial communities if it channeled relevant information into the internal communications system of the community. Therefore, the second major point is that large corporations became more than customers of financial communities; they became active participants in them. In fact, they frequently had a common genesis, and because of the personal interrelationships of the elites of the financial and non-financial enterprises the head office function of the latter corporations were disproportionately located proximate to the financial community from their inception,¹¹⁷ or found it advantageous to move at least a portion of their head office activity to such a location. In Canada, this to a considerable degree meant Montreal or Toronto. The net result was a compounding of the scale advantages of the financial community.

financial community in the West could provide equal service throughout the Dominion. Of course, because of the evolutionary process, there are not equally sized financial communities.

¹¹⁶See Olof Warneryd, Lars Nordstrom, and Britta Ohlsson, "Organizations as Physical Systems," Appendix I in Olof Warneryd, Interdependence in Urban Systems (Goteborg, 1968).

¹¹⁷See Allan Pred, The Spatial Dynamics of U.S. Urban-Industrial Growth, 1800-1914 (Cambridge: M.I.T. Press, 1966) for an analysis of the interrelationship of mercantile pursuits and nascent industrialization.

As well as the majority of the productive capacity of manufacturing and the manufacturing labor force remaining in Central Canada (see Tables 5-29 and 5-30), a sizeable amount of Canada's economy continued to be concentrated in a relatively small proportion of her industrial and commercial organizations. In fact, comparable manufacturing industries are more highly concentrated in Canada than in the United States.¹¹⁸ Three-fifths of Canada's output (excluding government administration and defence) originates in sectors dominated by large corporations (manufacturing, transport, finance, mining, utilities), while two-fifths originates in sectors in which small firms predominate (agriculture, trade, services, construction). This high ratio exists despite the fact that there is inconclusive evidence indicating that there has been a slight decline in the level of concentration, at least since the '20's, owing to the overall expansion of the Canadian economy.¹¹⁹ In any event, there has been a continuous occurrence of mergers throughout the period, Canada following the pattern of most industrial societies with regard to corporate

¹¹⁸G. Rosenbluth, Concentration in Canadian Manufacturing Industries, A Study by the National Bureau of Economic Research (Princeton: Princeton University Press, 1957), and G. Rosenbluth, "Concentration and Monopoly in the Canadian Economy," in Michael Oliver, Social Purpose for Canada (Toronto: University of Toronto Press, 1961), pp. 198-248.

¹¹⁹But such studies are inconclusive for technical reasons as Porter points out. John Porter, The Vertical Mosaic (Toronto: University of Toronto Press, 1965), pp. 239-240. Also, see The Canadian Bank of Commerce, Industrial Concentration (Ottawa, 1956). They break the economy into industries, and preclude the measurement of inter-corporate control through pyramided holding companies. Even where there is not an oligopolistic structure within a particular industry, the decisions made by large companies can severely affect smaller firms not directly controlled in a vertical, horizontal, or conglomerate corporate web.

TABLE 5-29 The Distribution of People in Industrial Occupations in Canada, 1881*

City or Area	Number of People in Industrial Occupations	% of Canadian Total	City or Area	Number of People in Industrial Occupations	% of Canadian Total
Montreal	20,754	7.2	Winnipeg	1,216	.4
Toronto	13,648	4.8	Vancouver and New Westminister	2,534	.9
Quebec	9,559	3.3	Nova Scotia	39,956	13.9
Hamilton	6,633	2.3	New Brunswick	19,437	6.8
Kingston	1,795	.6	Quebec	81,643	28.4
Ottawa	2,829	1.0	Ontario	130,214	45.3
London	3,170	1.1	Manitoba	2,455	.9
Halifax	4,588	1.6	British Columbia	6,937	2.4
St. John	3,537	1.6	Canada	287,296	

* Accurate figures for previous dates are unavailable.

Source: Census of Canada--1881, Vol. 2, 1884.

TABLE 5-30 Distribution of the Labor Force in Manufacturing, by Province, 1961

Atlantic Provinces	77,771
Quebec	466,443
Ontario	643,284
Prairie Provinces	104,107
British Columbia	113,019
Yukon and Northwest Territories	241

Source: Census of Canada--1961

matrimony, the great peak in these unions being the periods 1909-1912 and 1925-1930.

This economic concentration brings with it a channeling of information flows within the sometimes scattered organizations and this channeling is most frequently oriented to the head office. If the economic concentration also entails spatial concentration of the head office functions, the centers in which this spatial concentration occurs possess a very large intelligence-gathering network. In Canada, this has occurred and there is a disproportionate (in comparison to the distribution of manufacturing and commercial employment) orientation of head offices of non-financial firms to Toronto and Montreal and it is hypothesized that this is partly a result of long-range ties of non-financial head offices with the close communications net of the financial community.

One aspect of this tie is a tendency among many manufacturing and commercial firms to locate their head offices in the larger centers of Toronto and Montreal and locationally divorce the head office from the production divisions of the firm.¹²⁰ There are many reasons for selecting large metropolitan areas for the head office function, but the information environment which financial intermediaries play a leading role in creating, is a major one. Corporations, as manufacturing or commercial entities and only as customers of the financial

¹²⁰For example, the large Bata Shoe Company recently found it necessary to transfer much of its head office activity to Toronto, Kellogg Co. Ltd. to move its head office from London, Ontario to Toronto, and the Steel Co. of Canada from Hamilton to the same city. In the United States, New York is replete with head offices of companies whose production facilities are concentrated in other cities (i.e. Xerox and General Motors).

community could, in the modern world, just as readily be served by financial intermediaries based in the large financial communities irrespective of their distance from them. But, with the relaxation of spatial friction, many of these companies have internalized functions which used to be conducted by banking and brokerage houses, and in part have become financial intermediaries themselves, arranging the purchase and sale of securities and companies, and arranging financing for the purchase of their products, as well as investing their funds in the money market. Thus, active participation in the sometimes private world of the financial community and access to the web of communications has become an asset reflected in their head office location.¹²¹

Another reason for the intertwining in Canada in the head offices of mainly non-financial corporations and financial intermediaries, and a factor which has resulted in the locational concentration and relative immobility of financial communities, is tied up in the nature of control of these organizations.

John Porter, C. A. Ashley, and others, have found that there exists a numerically small but economically very powerful "power clique" composed of directors, top-level managers, and large investors and that the relationship among them is a very close one.¹²² Porter

¹²¹See Sidney M. Robbins and Nestor E. Terleckyj, Money Metropolis, New York Metropolitan Region Study (Cambridge: Harvard University Press, 1960), pp. 36-37.

¹²²On the role of investors Porter, Rosenbluth, and others, have concluded that in Canada very small groups of investors from very high income groups still control sizeable enough blocks of stock to enable their membership in the above-mentioned "clique".

In the nineteenth century, ownership usually constituted

has found that in 1955, 907 individuals residing in Canada shared among them 1,307 or 81 per cent of the directorships in the dominant (170) corporations, as well as 118 (58 per cent) of those in the then nine chartered banks and 78 (58 per cent) of those in the ten largest life insurance companies.¹²³ C. A. Ashley has stated that an enormously powerful and small elite can be isolated by taking bank directors alone.¹²⁴ He found that the 97 bank directors held among them 930 directorships in corporations operating in every sector of the economy. The Bank of Montreal and the Royal Bank of Canada's directors (55) held among them 460 directorships in addition to the banks. Particularly noticeable are interlocking directorship ties between the banks, insurance companies, and trust companies.

Where does this economic elite come from, and how stable has it been. As is indicated in Table 5-31, during the important period

control even in the largest corporations. For example, the machinations over control of the Erie Railroad in the United States in the late 1860's by Vanderbilt, Drew, Fisk, and Gould, revolved around control by possession of the requisite number of shares. However, as Galbraith, Berle, and others have pointed out in regard to the United States, there has been a subtle shift to the point where cliques of directors and top management control many large corporations owing to dispersion of stock ownership and disinterest of many large investors in anything but a satisfactory return on investment funds (J. K. Galbraith, The Affluent Society (New York: Signet, 1958) and The New Industrial State (New York: Signet, 1968); Adolf A. Berle, Jr., Power Without Property (New York: Harcourt, Brace and World, 1959), and The American Economic Republic (New York: Harcourt, Brace and World, 1963), and A. A. Berle and G. C. Means, The Modern Corporation and Private Property (New York, 1947). However, in Canada, this trend appears not to have occurred to the same extent. (See G. Rosenbluth, Concentration and Monopoly in the Canadian Economy, *op. cit.*, p. 204, and William C. Hood, Financing of Economic Activity in Canada, a study prepared for the Royal Commission on Canada's Economic Prospects (Ottawa, 1958), p. 245.

¹²³Porter, *op. cit.*, p. 242.

¹²⁴C. A. Ashley, "Concentration of Economic Power," C.J.E.P.S., Vol. 23, no. 1 (Feb. 1967), pp. 105-108.

TABLE 5-31 Places of Residence of the Most Important Corporate Directors in Canada - 1913

Place of Residence	Name of Directors	Financial	Transportation	Industrial	Assurance	Others	Total Companies	Assets of Companies of which the individual was a director
Montréal	Sir Hugh Montagu Allan	4	2	7	1	3	17	\$ 274,169,258
Montréal	R. B. Angus	2	4	1	.	1	8	1,432,590,169
Toronto	Senator Geo. A. Cox	6	5	14	4	.	29	698,958,742
Montréal	Sen. Nathaniel Curry	2	.	8	.	.	10	102,135,128
Montréal	Geo. E. Drummond	2	.	7	1	.	10	162,178,365
Montréal	Thos. J. Drummond	2	2	11	3	.	17	277,122,910
Ottawa	Sen. W. C. Edwards	2	.	3	.	.	4	310,248,496
Montréal	S. H. Ewing	3	2	5	1	.	11	132,963,117
Toronto	J. W. Flavelle	2	.	5	.	.	7	266,978,948
Montréal	Sir Rodolphe Forget, MP	1	5	7	1	1	15	142,488,301
Montréal	Chas. B. Gordon	1	2	.	.	.	3	276,869,339
Montréal	E. B. Greenshields	2	.	3	.	.	5	281,611,526
Montréal	D. B. Hanna	3	13	8	3	1	28	376,285,779
London Eng.	R. M. Horne-Payne	.	5	1	.	.	6	398,076,819
Montréal	H. S. Holt	2	3	11	2	2	20	1,420,566,571
Montréal	Chas. R. Hosmer	2	2	14	1	1	20	1,415,176,305
Toronto	Sen. Robert Jaffray	3	.	5	2	.	10	211,151,509
Toronto	Sen. Sir Lyman Jones	1	.	2	.	.	3	284,250,637
Toronto	Z. A. Lash, K.C., LLD.	2	6	2	2	4	16	769,803,510
Montréal	D. Lorne McGibbon	1	.	4	.	.	5	36,134,359
?	D. McNichol	1	1	.	.	.	2	1,049,745,567
Toronto	Wilmot D. Mathews	3	5	5	1	4	18	1,281,813,779
Toronto	Sir Donald Mann	.	3	1	1	.	5	263,365,543
Toronto	Sir William Mackenzie	3	7	8	1	1	20	621,638,858
Montréal	Sen. Robert Mackay	2	3	13	.	3	21	1,609,296,861
Toronto	S. J. Moore	1	1	6	1	.	9	51,344,851
Toronto	Geo. A. Morrow	3	.	3	4	1	11	60,771,669
Montréal	Lieut. Carl F.S. Meighen	2	.	2	1	1	6	57,382,528
Toronto	Cawthra Mulock	1	.	2	2	.	5	106,018,169
Winnipeg	A. M. Nanton	2	3	3	.	.	8	406,417,450
Toronto	Frederick Nicholls	.	7	9	2	.	18	394,025,106
Toronto	Sir Edmund B. Osler	4	4	.	1	6	15	1,170,207,682
Toronto	Col. Sir Henry Pellatt	2	6	11	2	2	23	257,883,726
Toronto	J. H. Plummer	2	3	4	1	.	10	333,154,283
Montréal	James Ross	2	1	2	.	.	5	279,482,460
Mtl/London Eng.	Rt. Hon. Lord Strathcona	4	1	2	1	2	10	1,310,137,159
Montréal	Sir Thos. Shaughnessy	2	2	.	.	1	5	1,373,759,926
Montréal	Sir Wm. Van Horne	1	9	6	1	3	20	1,425,273,567
Toronto	Sir Edmund Walker	2	1	3	1	.	7	304,407,756
?	Sir Wm. White	3	2	3	2	.	10	1,127,203,232
Toronto	D. R. Wilkey	2	.	.	2	2	6	140,806,965
Toronto	E. R. Wood	4	6	11	3	.	24	824,147,917

This list of the people holding the most directorships in the 204 largest Canadian corporations was compiled by the Grain Growers Guide of Winnipeg (June 25, 1913). The conclusions they drew from these statistics were somewhat overdrawn in attempting to prove the existence of a bank-centered oligopoly running the Canadian economy. A check in the sources listed below indicates that they are accurate. These statistics are also reproduced in J. Castell Hopkins, Canadian Annual Review of Public Affairs, 1913 (Toronto: Annual Review Publishing Co., 1913) pp 57-58.

The Places of Residence of these Directors was determined from: John F. Kennedy, ed. Who's Who and Why in Canada, Vol. I (1912), H. J. Morgan, The Canadian Men and Women of the Time (Toronto: William Briggs, 1912), W. S. Wallace, The Dictionary of Canadian Biography (Toronto: The Macmillan Co. of Canada, 1926).

of the "wheat boom", the most powerful members of the corporate elite were almost totally resident in Montreal and Toronto and more recent studies indicate that these cities still contain a disproportionate number of members of this elite. Among the Canadian elite, Porter has pointed out that mobility into this select circle is relatively limited (see Table 5-32) which would also indicate that the locational mobility of the economic elite would be retarded.¹²⁵ This elite is also fairly homogeneous; "it appears as a complex network of small groupings, interlocked by a high degree of cross membership. Throughout the network, runs a thin, but nonetheless perceptible thread of kinship."¹²⁶ In addition, private schools, law, and engineering faculties provide a shared experience for many in the elite group. Such clubs as the Mount Royal and St. James in Montreal, and the York, Toronto, and National in Toronto, are a fairly common denominator of the economic elite. These five clubs alone had 713 members of what Porter classed as the economic elite of 760 people (some belonged to several). It appears that the private information fields of many of the higher level decision-makers in Canadian finance has encompassed a very powerful but small group of financial and non-financial leaders, and a group which has to a significant extent concentrated in Montreal and Toronto. Access to such a group undoubtedly has provided a great many benefits in the form of information availability, and the somewhat constant nature of the group has tended to retard the movement of the control locus of Canadian finance.

¹²⁵Porter, op. cit., pp. 265-308.

¹²⁶Ibid., p. 304.

TABLE 5-32 Class Origins of 611 Canadian-born Members of the Economic Elite

Class Indicator*	No.	Cumulative		
		No.	%	% of top 100**
Upper				
Father in economic elite	135	135	22	30.3
Father in other elite groups	13	148	24	37
Wife from elite family	41	189	31	46.6
Father in substantial business	42	231	37.8	54.5
Middle or higher				
Attended private school	75	306	50	67
Middle				
Father in middle class occupation and/or attended university	197	503	82	85.2
Possibly lower than middle class	108	611	100	100

*Some persons, of course, could be put into more than one category.

**The percentages in this column are of the 88 Canadian-born who have been classed in the top 100.

From: John Porter, The Vertical Mosaic (Toronto: University of Toronto Press, 1965), p. 292.

Thus, with concentration of the economy in fairly large concerns remaining at least at a fairly constant level; with head offices tending to congregate near the large financial communities of Toronto and Montreal; and the links between the financial intermediaries and non-financial corporate head offices remaining relatively strong and permanent--the overall process is not as Gras has suggested, towards independent financial communities arising in outlying areas. Financial activities in these areas have principally revolved around the serving of activities involving extreme levels of uncertainty such as the early development of mining and oil properties, some insurance, which is for the most part able to discount risk and requires relatively little uncertainty reducing information, and financial activities which require masses of information of low unit value (such as the "street offices" of financial intermediaries).

CHAPTER VI

CONCLUSIONS

The reader who has had the patience to pursue the above high-ways and byways of financial interaction may have become conscious of intersecting trails. It is those intersecting trails and the broad alignments of the landscape which are of prime concern here.

1. Informational Constraints as Locational Influences on Financial Functions

The crucial element in the explanation of the distribution of higher level financial decision-making is the type and quality of information required to make decisions and the way in which it may be communicated over space at various time periods.

Throughout the period which has been examined, seven major variables appear to have influenced the non-street-office functions of financial intermediaries, and the communities in which they cluster. These factors, in interrelationship, entail organizational adaptations which in turn result in spatial centralization or decentralization, replication or unification within the financial system (see Table 6-1). These factors are:

(1) The relative sizes of the individual financial communities at any given time.

(2) The nature of the investment opportunities with which the financial functions are dealing, and;

TABLE 6-1 Factors Influencing Centralization on a Relatively Large Financial Community Versus Decentralization to Relatively Smaller Ones in a System of Financial Communities

		Factors						
		Nature of investment opportunity degree of localization	Amount of uncertainty at source	Mass of information in relation to its value	Inherent need for uncertainty reducing information	Need for agglomeration economies	Sustaining power of the regional economy	Ability to transmit information
Centralization ←	great relative size difference between a large financial community and the others	source of information highly dispersed over space	uncertainty not great	small mass of high value	high	high	insufficient to maintain regional financial communities when functioning in relative isolation	adequate to carry satisfactory levels of uncertainty reducing information
	→ Decentralization	source of information highly localized	great deal of uncertainty	large mass of low value	Low	Low	sufficient to allow regional financial community to expand when functioning in relative isolation	inadequate to carry satisfactory levels of uncertainty reducing information (information overload)

- (a) whether there is a great deal of uncertainty involved in the investments,
 - (b) whether this high uncertainty industry is localized in a fairly narrowly defined region.
- (3) The mass of information required in relation to its value.
 - (4) The inherent need for uncertainty reducing information.
 - (5) The savings incurred from agglomerating.
 - (6) Sustaining power of the local economy.
 - (7) The state of the communications system.

As pointed out in the previous chapters, each of these factors affects the varying elements of the financial community to varying degrees at various times, and their impact on the net centralization or decentralization within the financial system is a result of their working in concert.

The first variable, that of the relative sizes of financial communities, is a summary measure of the advantages which a financial community is able to impart to the units working within it. As has been pointed out in Chapter II, one central advantage of the relatively larger financial community is the greater access to the "internal" information exchange system of a financial community in which intelligence, frequently semi-private and non-standardized, is exchanged on the basis of face-to-face contact and personal relationships built up prior to its transmission. In addition, the larger the financial center and the greater the number of transactions in its marketing system, the greater the amount of information that actually emanates from within the financial community rather than directly from the external world. Furthermore, the larger financial community has a more extensive communications network feeding information into the internal communications system. Also, there are the considerable

advantages emanating from the classical agglomeration economies, such as the sharing of business services, and the minimization of the costs of transfer of ownership certificates, etc.

With regard to the second variable, that of the uncertainty involved in investment, sometimes the industry in which financial intermediaries are contemplating investing or advising clients about investment, involves high levels of uncertainty; investment in the diffuse corporate parts of the industry being highly speculative (the best example being the mining and oil industries). A satisfactory investment decision necessarily involves more intensive gathering of information, and the quantity of information may be too great for the communications system to transfer in unprocessed form to a distant financial community, and more importantly, extremely valuable information may not be transferred in time to a distant financial center. The net result is an organizational shift in decision-making to the location of the industry, or to a small financial community closer to the source of information. This shift could only occur where the particular industry is fairly localized. With dispersion of the information sources, the inducement for certain financial functions to shift to a lesser financial community are reduced.

The third variable, that of the relation of the mass of information to the return per unit of that information, can also affect the spatial distribution of financial decision-making. If the particular business involves the loaning of small amounts of money to many individuals (such as is the case with most branch-bank operations), the mass of information required about those individuals is of relatively low value in comparison to the return on the loan. In many communication

environments, this sort of information does not warrant the cost of moving it to a central financial district. On the other hand, large loans to few individual customers may warrant the movement of the information required. This factor is merely a transformation of the central idea of transport cost minimization location theory.

Another factor which varies among financial functions is the inherent need for uncertainty reducing information. Some, such as insurance, have had relatively little need for up-to-the-minute information because, on the one hand, they provide a service in which there is relatively little uncertainty (the risk in providing the insurance service can be "discounted") and, on the other, their investments have been on the whole in stable long-range securities (frequently required so by law). If there is little need for the rapid acquisition of uncertainty reducing information, then the attractive force of the information environment of the various financial communities (or any other area) is of little relevance.

If a financial function has little inherent in its operations that requires ready access to up-to-the-minute information, and thus little need to be located in areas where information can be most rapidly acquired, it may still find such an environment congenial to its operations because of classical agglomeration economies such as a pooled labor supply, superior business services, and such factors as prestige and the quality of the labor supply.

Another variable which appears to play a role in the distribution of higher level decision-making in financial intermediaries is the sustaining power of the local economy. The relevance of this factor is parochial in both time and space, varying with the protection

offered by spatial friction (and other barriers) and the ability of a regional financial center to tap the regional market. If spatial friction was insufficient to provide the regional financial center with protection from more distant but larger financial centers, then it would be irrelevant, as far as the regional center is concerned, what demand for financial services existed in the region.

The final variable, and one which must be taken into account with all the others as a locational criterion, is the adequacy of the communications system to move satisfactorily with the required speed, not only given quantities of information but also information of particular qualities (for example, highly valuable information which could only be transferred on a basis of trust). Centralized decision-making in the financial system can only take place if the system of moving the information on which those decisions are made is adequate. Improvements in the communications system work to the disadvantage of smaller financial communities, creating a trend toward a truly centralized pattern and away from one characterized by dispersed centralization. For example, the branch banking system, in a recursive manner, provides the foundation of its own viability. The authoritarianism inherent in the far flung corporate banking empires permits a greater standardization and efficiency in communications. This resulting efficiency and the reduction in spatial differences in interest rates reduced the probability of an endogenic development of locally based banks. Without government regulation aimed at encouraging the undoubtedly more democratic, locally derived banking system (such as has occurred in the United States), a branch system centered on a very few large financial communities would prevail. Thus, national banking

policy, primarily through its effect on the flow of financial intelligence, can promote or not promote a centralizing tendency (with important implications for the growth of a nation's cities and their internal structure).

The conditions which produce centralization may be described as follows. If in the system of financial centers, one or two are much larger than the rest, the relative differences in the availability of profitable information are therefore greater, and this in turn leads to expansion of the larger community. If the sources of information are not from the financial community itself but from external sites, the level of uncertainty of investment and thus the quantity of information which must be assembled in order to make a satisfactory decision can also affect the tendency towards centralization or dispersed centralization. If the level of investment uncertainty at these external sites is low, relative to the magnitude of the various types of communications channels, then the provision of financial services may be conducted from a large pre-existing financial community. If the level of uncertainty is high but the sources of information are scattered outside the financial community, the tendency may be towards a centralized location. If the ratio of the mass of information required in order to loan funds, to the return on that loan is low, a large financial community becomes a more rational locational choice for this type of decision-making. Again, this is highly dependent upon the nature of the communications channels available to the system. Some functions by their very nature are not dependent upon uncertainty reducing information, and thus may not be oriented to areas of concentration of this information, whether in a financial community or external area of information concentration.

Only where this need is fairly high would this function be involved in a centralization process on large financial communities. Much the same thing could be said about functions having varying needs for agglomeration economies. Centralization may be increased if the various regions, distant from a large, long-standing financial community, are unable to sustain or even promote the rapid growth of regional financial communities which are protected by barriers such as distance from the competition of larger financial communities. When these barriers are removed, the smaller regional centers are left in a competitively disadvantageous position. Throughout, an important factor has been the capacity of the communications channels to rapidly move both standardized information and information dependent upon individual personal contact whether before or during transmittal. This capability in turn is dependent upon such things as the state of technology and the internal structuring of information flows of non-financial organizations, the concentration of the economy into few organizations, and the centralization of these organizations. The system of communications needs to be adequate for the increased movement of information concomitant with a centralized organization of financial decision-making. If it is not, organizational adaptations need to be undertaken in the financial system towards dispersed centralization.

2. A Circular and Cumulative Growth Model

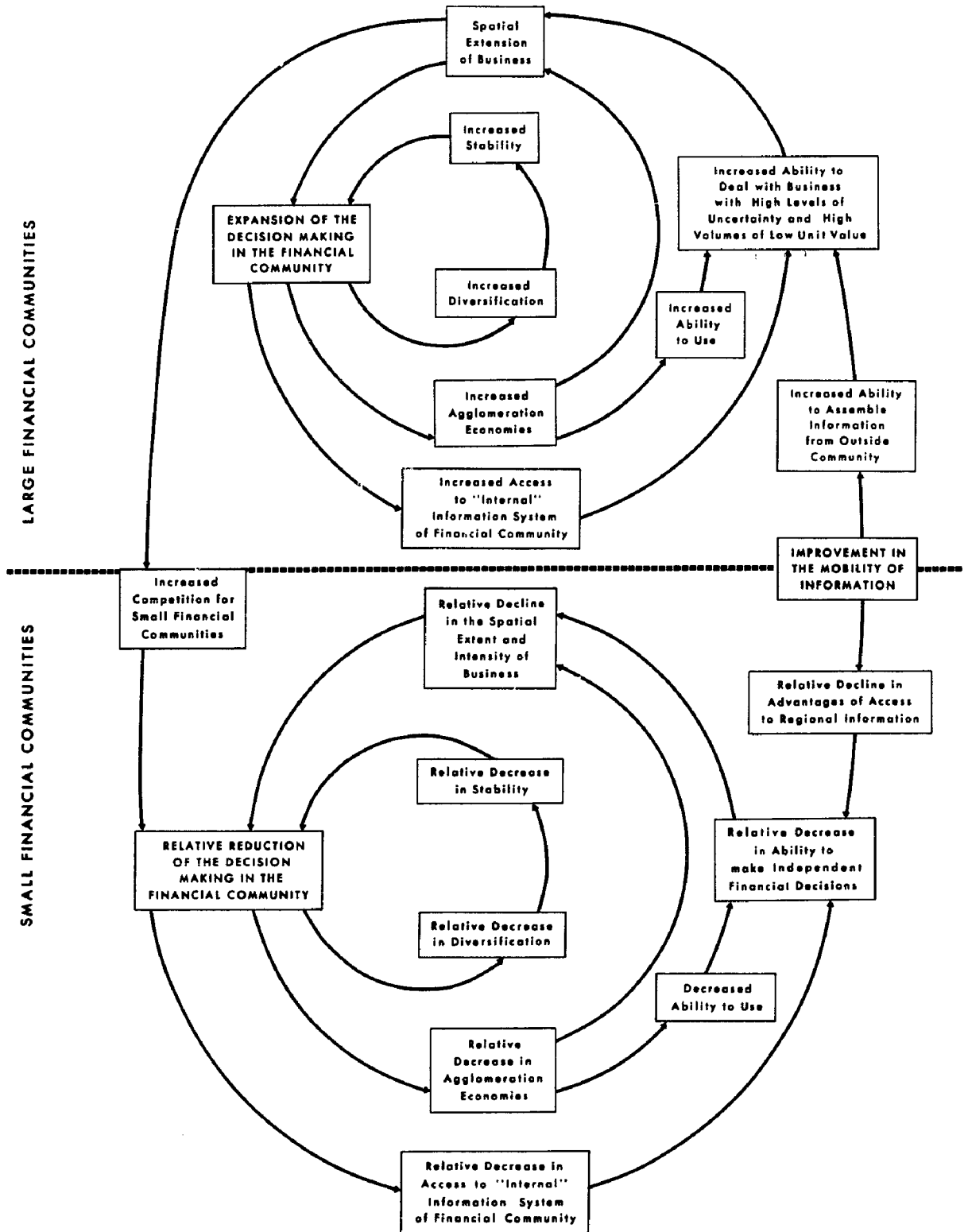
The foregoing locational factors tell little about financial communities as a constantly evolving system, and the interacting processes producing spatial change in the system. Thus, in the following paragraphs, a model is put forward which pictures the primarily

endogenous forces (i.e. emanating from within the financial community) working in a system of financial communities in an environment where communications are stagnating or improving. Also, an assessment is made of the way in which some external forces influence this process.

The model as diagrammed in Figure 6-1 represents the circular and cumulative processes at work within two spatially separated financial communities, one large and one small, when the two communities are not existing in isolation from each other. The only external force present in this bi-polar model is a continuing improvement in the communication system's ability to move information. Such an improvement results in the improved ability of many of the functions in the larger financial community to invest satisfactorily, funds under its control or direction in investment opportunities which are located close to the smaller financial community.¹ This, in turn, represents a net spatial expansion of the hinterland of the financial district and an intensification of the interaction within that hinterland. This increased interaction, in turn, results in expansion of the decision-making taking place in the financial community, and its expanded size means the greater possibility of the exchange of information through the internal communications system. This, in turn, results in an improved capability of making satisfactory investment decisions, which in turn improves the competitive advantage of the financial center vis-à-vis other centers. Coupled with this cycle based on information flows are other advantages resulting from the increased size of the

¹The model would still be recursive without this exogenous force, but the velocity of the growth process is stepped up with improvement in the communications system.

FIGURE 6-1 MODEL OF GROWTH PROCESS OF FINANCIAL COMMUNITIES



financial community. The increased scale also results in such things as improved access to external business services, and ability to pool labor and capital resources. As well, with the increased size and diversity of the financial community, it becomes less dependent upon any one particular type of financial activity and less likely to decline rapidly with the demise of that function, which is a particular failing of many small regional financial centers.

The improved competitive position of the larger financial community, in turn, may push the smaller one into a downward spiral, if exogenous forces do not compensate for this trend. The improvements in communication reduce the relative advantages of regional or local financial communities and exposes them to larger financial communities which have greater sources of information emanating from within, and increasingly equal access to information about investment opportunities in the more distant regions.

Carried to its logical conclusion, with communications steadily improving, distance from a financial community becomes irrelevant as a factor influencing the quality of service which it is able to provide. It appears that the medieval internal communications system of the financial district remains the important factor but the distance of a customer from various communities loses significance. In other words, distance is still a significant factor for the internal communications of the financial community but it loses much of its significance for external relationships. (If space were totally irrelevant, there would be no reason for a clustering in financial communities at all.) Why should the external communications of the financial community be more affected by overall improvements in communications than the

internal communications? The answer appears to lie in the nature of the messages being transmitted, the external ones being more standardized, fewer in quantity to any particular locale, less dependent upon personal face-to-face contact than the internal ones. Once the messages are transmitted primarily by fairly rapid mail, telegraph, telephone, and aircraft, marginal increases in distance become negligible in importance in comparison to the difference in the quality of service provided by small and large financial communities. The basically medieval communications system used within the financial community is less readily affected by technology. The net effect is concentration of information flows on the financial community without a corresponding fragmentation of that agglomeration.

Clearly, this model is insufficient to account for those times when small financial communities arise, survive and even become the equal of large prior communities. There have obviously been important exogenous influences which affect the velocity of this spatial growth process and even reverse the trend. It is therefore necessary to expand this model into one reflecting both the overall trend towards the establishment of points of attachment for financial decision-making, and the forces which can create new points of attachment. This model can best be presented in the Canadian context.

3. Points of Attachment and the Geography of Financial Intelligence: A Model of the Locational Process in Canada

The interplay of the foregoing ideal-typical growth process of financial communities and the constraints imposed on this locational process by the spatial variations through time in the quantity, nature, and mobility of information emanating from outside the financial

community, appears sufficient to explain the location of Canadian financial communities.

Montreal became the initial point of attachment of the largely European financial system in pre-Confederation Canada, and from this base it evolved a financial community which, in part, functioned independently of Europe. In terms of the three primary dynamics affecting the availability of information, why was it necessary for this initial point of attachment to arise at all? On the surface, considering the barrier of the North Atlantic, the answer is self-evident. But, the spatial adaptation of the financial system to provide decision-making in Montreal reveals principles which recur throughout the evolution of the Canadian financial structure. Montreal, of course, was relatively much smaller than London or any other European center of finance or such American cities as New York and Boston, and the flow of funds to Canada in the first half of the nineteenth century was much smaller than that to the U.S., both in total and per capita terms. Yet, it was still able to arise as an important center of financial decision-making. The reason for this appears to be that the amount of information required to make a decision concerning Canadian investments could not be communicated properly to Britain and the Continent. It had to be preprocessed, and decision-making authority given to intermediaries in Canada, and logically to those in the point of attachment that was the largest commercial center in the colony. Also, because of difficulties in trans-Atlantic communications, the flow of capital to Canada was impeded resulting in the formation of Canadian financial intermediaries to better utilize the sources of capital existing in the colonial economy. In other words, the communications barrier promoted

preprocessing of information in the intelligence network, and also necessitated the endogenic development of financial intermediaries on the western side of the barrier.²

A small financial community arose in Montreal, but it was not alone in Canada; the frontier in Upper Canada also generated a competing financial community. The "normal" process of growth (see Figure 6-1) did not happen. In the first place, because of the relatively limited flow of capital into Canada prior to mid-century, Montreal's financial community was not large and its advantages over centers in Upper Canada were limited. Secondly, communications facilities were slow and unpredictable prior to the telegraphs and railroads of the 1850's. Thirdly, the separate governments existing in Upper Canada prior to 1841 actively promoted the financial institutions in its capital, Toronto, at a time when their assistance could make a crucial difference.³ The net result was a negation of Montreal's somewhat limited initial advantages as a financial center servicing the relatively prosperous western part of the Province of Canada.

²In the Maritime Provinces of British North America, a further point of attachment also arose--Halifax. Here, it would appear, the same process may have occurred in response to the Atlantic barrier. Moreover, in relation to Montreal, the forces creating Halifax's financial community were endogenic up until the last part of the century when the telegraph and rail lines such as the Intercolonial and National Transcontinental exposed this area to the larger center of Montreal. The somewhat weaker economy of the Maritimes did not permit the evolution of a center which could be competitive in the acquisition of intelligence. Thus, by the turn of the century occurred the phenomenon of the literal emigration of long established financial institutions from Halifax to the financial communities of Montreal and Toronto.

³Which points out that the model is not inexorable, especially in the early stages of the evolution of the financial system.

The border, serving as a barrier promoted the existence of intermediaries in Toronto to serve the financial linkages between Upper Canada and New York (although there is little evidence that the financial links were any stronger between New York and Toronto than between New York and Montreal and thus promoting a differential growth rate).

The bi-polar orientation of higher level financial decision-making was established very early in the history of Canada and this bi-polarity remained to the 1960's with only a change in the first and second position occurring, a shift which is to a considerable extent attributable to Toronto's acquisition of the majority of mining finance. Thus, a second point of attachment arose in Canada. Improvement in communications did not result in the increasing dominance of one city over the other, because the difference in their internal advantages was not great, and the area the financial communities served became increasingly similar. The concept of hinterlands increasingly loses its significance as a determinant of the location of head offices and higher level decision-making. With the increasing interpenetration of the financial linkages, the economic sustaining power of the regional economy around the financial centers loses its importance.

This is reflected in the third relationship which was examined, that of Montreal and Toronto taken collectively, with the expanded periphery of Canada. With the exception of the mining industry, and particularly that centered in the Cobalt-Porcupine area, Montreal and Toronto shared the entire country, and frequently beyond, as their hinterlands with respect to almost all functions. In many fields, such as banking and securities trading the level of penetration of

regional markets by Montreal and Toronto headquartered institutions varied little with distance. Thus, the constraint of distance to markets as an influence on the distribution of higher level financial decision-making steadily decreased. In its stead, the locational factor of greatest importance became access to profitable information which increasingly was concentrated in large financial communities. This information, more and more originated within the financial community, was increasingly concentrated there even if it emanated from outside sources, and finally was most available there because of the face-to-face nature of the information exchange mechanism.

Montreal and Toronto's access to financial intelligence was proportionately much greater than that of western regional centers such as Winnipeg. Electronic and postal communications, along with passenger transportation, were of a sufficiently high caliber that, with few exceptions, Central Canadian financial communities were able to exercise their competitive advantage throughout almost all of peripheral Canada. Only where uncertainty levels were extremely high, such as with certain mining and oil developments, and where the mass of information was large in relationship to its worth, such as typified the street-office functions of banking, or where the industry required little uncertainty-reducing information, such as with many insurance head office functions--were the decisions made in lesser financial communities or outside financial communities entirely.

4. The Relationship of the Geography of Finance to the Endogenic Models of "Central Place" and "Metropolitan Evolution," and the Exogenic "Mercantile Model"

The evidence in Canada seems to support an explanation of the

distribution of the non-"street-office" financial functions which is substantially different from that offered by the central-place model (which has been frequently assumed to cover financial activity and frequently has been offered as an all-encompassing explanation of the structure and role of cities). It also is diametrically opposed to the explanation popularized by N.S.B. Gras as part of his model of "metropolitan evolution."

Both of these models have as their essence the concept of threshold (although Gras didn't express it as such). Both assume that as urban-centered regions grow, thresholds are fulfilled and to Gras, the highest threshold is the one permitting the existence of an independent financial community. The present model contends that if this threshold is reached, and is served by an endogenous financial community, it is a special case emanating from insufficiency in the financial intelligence network of the overall society to cope with the demand for financial intelligence (and even then the decentralization of financial decision-making is only partly endogenic). In effect, finance, as the function with the greatest gains to be made by concentration in compact financial communities and one most easily assisted by long-distance improvements in communications and transportation, evolved in a manner different from retailing.

Its locational evolution approaches much more closely that of wholesaling and Vance's mercentile model.⁴ This model maintains that the prime causes of wholesaling location (and the alignment of major

⁴See James E. Vance, Jr., The Merchant's World: The Geography of Wholesaling (Englewood Cliffs, N.J.: Prentice-Hall, 1970).

settlements) results from the necessities of the external trading system. This system and its mercantile settlements are the precursor of the internally oriented trading system which merely provides infilling in the established pattern (in a manner similar to that described in central-place theory). The pattern of wholesaling centers functioning as "unravelling points" in the mercantile system approaches more closely the pattern found in finance than does Christaller's thesis, as might be expected from the fact of finance and wholesaling's common genesis and the fact that the spatial pattern of both result basically from exogenic processes. For example, in both, competition is frequently much less spatial and more organizational, and points of initiation assume great importance.⁵

But, there are points of departure as well as the many of similarity in the process. A major distinction between the two is that in wholesaling a process can be observed whereby a progressive "internalization" of wholesale trade occurs and wholesaling decision-making begins to reflect (in some cases) a consumer orientation rather than an orientation to the suppliers of trade goods.⁶ In respect to financial decision-making, there is little indication of such a trend. This is probably a reflection of the substantial difference in the importance of intelligence in the operations of the two sectors. In finance, information is for all intents and purposes, the sole thing which requires movement, while in wholesaling both intelligence and goods require transferral. In the higher levels of finance, the advantages

⁵Ibid., p. 149.

⁶Ibid., pp. 101-104.

of a location in an initially important center appear to be sufficiently greater than the advantages of a location in close proximity to particular consumers (except in the particular cases mentioned above). Thus, the exogenic processes of the mercantile model have continued their domination and the endogenic processes have remained special cases.

The present model is based on the premise that the economics arising from the shared information sources of a financial community are of much greater importance (and increasingly so through time) than the demands of the consumer for financial services for the nearby location of this activity. It also assumes that while many financial centers may have initially evolved from endogenic forces within relatively constricted and isolated regions, increasingly the forces afflicting the growth of most smaller financial centers are exogenic, emanating from larger, usually older financial centers. In effect, locationally there is a tendency for financial functions to centralize, to locate where the raw materials of the industry (profitable information) is found in greatest concentration. Only when impediments prevent the inward flow of sufficient information (which become fewer through time) does decentralization take place.

Finance tends to seek out points of attachment. As the commercial economy spread outward from Europe and across North America, it was necessary for new financial communities to arise because of a dearth of financial intelligence in the pre-existing financial communities. But, as the expansion took place, this necessity declined, so that the financial centers showed an increasing tendency to "stick." It was necessary for new points of attachment to arise in coastal

cities such as Montreal and it was relatively easy for Toronto to arise in the face of Montreal, but there the financial structure "stuck." For the most part, the information increasingly moved to the decision-makers of the financial intermediaries rather than the decision-makers to the external sources of information. It was largely in more distant areas with mining and oil industries with their high levels of investment uncertainty, that some higher level financial decision-making arose.⁷

During the period covered in this work, there has been a staggered but one-directional movement of the time and cost of moving information, resulting primarily from the sometimes spectacular innovations in technology. Higher level financial activity dependent upon intelligence and dealing with information which is sometimes inestimable in value, has been one of the first functions to be affected by the reduction in the constraints of distance. But, the lowering of the walls of distance has been selective in its impact. In a truly frictionless space, information may easily flow to the center, but

⁷There is some evidence that a similar pattern occurs in the U.S. The four major financial centers of the U.S. Seaboard (New York, Boston, Philadelphia, and Hartford) have bank and insurance companies headquartered there with assets of 144 billions of dollars, while the six major financial centers of the remainder of the United States industrial belt (Cleveland, Detroit, Pittsburgh, Chicago, St. Louis, Milwaukee) have assets of only 29 billions of dollars. The four major financial centers of the Southwest and West (San Francisco, Los Angeles, Houston, and Dallas), on the other hand, have assets of almost 35 billion. (From William Goodwin, "The Management Center in the United States," Geographical Review, Vol. 55, no. 1 (Jan. 1965), p. 12). Of these latter cities, San Francisco, Houston, and Dallas, which make up 70 per cent of the 35 billion, arose as financial centers primarily because of the mining and oil industry. As well, San Francisco has the largest stock exchange outside of New York.

there would be no greater advantages in this center than elsewhere if the ties which bind it together were to be infinitely stretched or broken. As the friction of distance has declined, its first impact has been towards enabling the financial communities with particular advantages to exercise them more easily over greater distances. The time apparently has not yet come when universal immediacy would break the internal bonds of the financial community and project those advantages to previously underprivileged financial communities.

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